

TABLE 2—*Pissodes alascensis* reared at Vernon, B.C. (1,300 ft elevation) 1965-66

Locality	Host (spruce)	Date felled (1965)	Date caged (1965)	Adult emergence	
				No.	Range (1966)
Pine Pass	white	Jun 22	Aug 23	8	Jun 19- Jul 17
Bednesti L.	black	Jun 25	Aug 24	50	Jun 17- Jul 28
Donald	Engelmann	Jun 23	Aug 27	32	Jun 19- Jul 13

the summer and caged at Vernon (1,300 ft. elevation) in August, 1965. *Pissodes alascensis* adults were reared only from Engelmann, white, *Picea glauca* (Moench) Voss, and black spruce, *P. mariana* (Mill.) BSP.

Emergence ranged from June 17 to July 28 (Table 2) and was completed 1 year after infestation. The logs were peeled to expose the larval galleries and pupal chambers. The larvae had fed on the inner bark but had not scored the wood except during construction of pupal chambers. In black spruce, the chambers were excavated to a depth of 2.5 mm (Fig. 1). There were 57 pupal cells in 1 ft² of a black spruce bole 127 mm in dia-

meter with bark 4.0 mm thick. No similar information was available for Engelmann or white spruce.

Forest Insect and Disease Survey records show that *Pissodes alascensis* ranges throughout interior British Columbia and north at least as far as Mile 60 on the Mayo Road, Yukon Territory. The weevil was also collected at Alta Lake, B.C., (Fig. 2).

Acknowledgements

The author is indebted to D. A. Ross for permission to use the data on *Pissodes* obtained from his wood-borer investigations during 1965-1966. The *Pissodes* were identified by S. G. Smith, Entomology Research Institute, Sault Ste. Marie, and B. A. Sudgen, Forest Entomology Laboratory, Vernon, B.C.

Reference

- Hopkins, A. D. 1911. 1. Contributions toward a monograph of the bark-weevils of the genus *Pissodes*. U.S. Dep. Agric. Tech. Ser., 20 (1) p. 61.

BOOK REVIEW

Insect Pests. H. S. Zim and G. S. Fichter. New York, Golden Press, 1966. p. 160. \$1.35 in Canada.

Here, at last, is the answer for impoverished students and perennial inquirers who need a book on insect pests that is reliable, readable, and cheap. A generalized book is no substitute for local, explicit recommendations, and this one gives no more than generalized advice for dealing with 350 pests over so varied an area as middle North America. It does contain an immense amount of factual and biological information and gives broad principles of control. It provides the maximum of economic entomology for the minimum money.

The all-important breakdown and organization are well-thought-out. The sections with the number of pages are as follows: Introduction, numbers, relatives and development of insects (6); controlling insects by natural, biological, mechanical, chemical and new methods (14); household pests (14); insects that bite or sting (10); pests of: pets, poultry and livestock (13); vegetable crops (25); flowers and shrubs (12); field and forage crops (22); fruits and fruit trees (19); forest and shade trees (7); stored products (8); an index of scientific names (3); and common names (4).

Compared with the earlier 'Insects', this book presents only one-

half as much basic entomology, and this is a pity. No space is wasted. Nicholas Strekalovsky's coloured pictures tend to be small and crowded but they are accurate and adequate. Crowding accounts for the only real error noted (p. 94). The writing degenerates at times into the telegraphic, but it is generally hard to fault. The printing and quality of the pictures are somewhat uneven and not up to the high standard of earlier issues in the series. There is a blue-green cast to the inks used, the letterpress fades into grey in places, and the paper is thinner and shiny. At the foot of each page the section is given with the page number. The annoyance at finding these often crowded off the page by pictures running out to the margin, indicates their usefulness for quick reference. The captions and text seldom repeat each other, and there are good cross references between sections. Measurements are given in decimal fractions of one inch. An inch scale divided into tenths would be more useful than the cm and mm scale given at the margin on p. 158.

In the space available, the coverage is maximal, and includes, naturally, a number of non-Canadian pests. The mites are well covered and there are illustrations and descriptions of such non-insect pests as jumping and black widow spiders, millipedes, centipedes, sowbugs, slugs,

and snails. Of interest is the threatening cereal leaf beetle, *Oulema melanopa*.

The treatment of pesticides deserve mention. The introductory section deals with formulations, stomach poisons, and contact insecticides, covering inorganics, natural organics and the synthetics. Under chlorinated hydrocarbons, DDT rates 210 words, and there are short paragraphs on or mention of methoxychlor, TDE, BHC, lindane, toxaphene and the cyclodienes as a group. Under organo-phosphates, there is mention of parathion, demeton, TEPP, malathion, DDVP, diazinon, ronnel and dicapthion. Fumigants include CS², dichloropropene and dichloropropane, HCN, CH³Br, paradichlorobenzene and naphthalene. There is a paragraph on oils, another on repellents, and a final short section on sterilants, hormones and sorptives. Over and over throughout the text, the theme is repeated: "Do not use insecticides after the plant begins to form edible parts"; "Timing is critical . . ."; "Local agricultural agents can advise . . ."; "Consult an agricultural agent . . ."; "Follow directions carefully"; and so on.

All Golden Nature Guides contain 160 pages. To distil into this predetermined compass a significant part of the available information, is a *tour de force*.

H. R. MACCARTHY

METRIC CONVERSION

Contributors of papers on laboratory studies should use the metric system exclusively. Use of the metric system in reporting the results of field studies is a desirable ultimate objective. Since it is difficult to replace immediately such standard concepts as lb/acre by the unit kg/hectare, yards by meters, or miles by kilometers, the following table of conversion factors is presented.

1 in.=2.54 cm	1 ft ³ =28.3 dm ³	1 cm=0.394 in
1 yard=0.914 m	1 acre=0.405 hectares	1 m=3.28 ft=1.094 yards
1 mile=1.61 km	1 lb acre=1.12 kg/hectare	1 km=0.621 mile
1 lb.=453.6 g	1 lb/in ² (psi)=70.3 g/cm ²	1 kg=2.2 lb
1 gal (U.S.)=3.785 liters	1 lb/gal (U.S.)=120 g/liter	1 liter=0.264 gal (U.S.)
1 gal (Imp)=4.546 liters	1 lb/gal (Imp)=100 g/liter	1 liter=0.220 gal (Imp)
	1 dm ³ =0.0353 ft ³	
	1 hectare=2.47 acres	
	1 kg/hectare=0.89 lb/acre	
	1 g/m ² =0.0142 psi	
	1 g/liter=0.83 lb/100 gal (U.S.)	
	=1000 ppm	
	1 g/liter=1 lb/100 gal (Imp)	