

The moths, nicknamed "Pink-bordered Yellow" by Blackmore, possess none of this metallic sheen; and the nickname indicates, the colour is yellow with a pinkish-brown margin on the front wing. I can find no references accounting for metallic gold in insects. Other colours, especially yellows, are accounted for by pigments and environmental factors, but not gold. The gold in these pupae may be pigment, rendered

metallic by interference lines, that emerges in the adult wing as yellow.

Finally it is of interest to note that the word "Chrysalis" comes from the Greek "Khrusallis" meaning "golden thing". Did the first entomologist-etymologist to employ that word *Chrysalis* to the obtect pupae of Lepidoptera, have before him the metallic golden pupa of this insect *Sicya macularia*? —G. J. Spencer, University of British Columbia, Vancouver.

ANNOTATED LIST OF FOREST INSECTS OF BRITISH COLUMBIA PART VIII — SEMIOTHISA SPP. (GEOMETRIDAE)¹

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The larvae of *Semiothisa* spp. are leaf eaters; seven of the forest species feed on conifers, three on deciduous-leaved hosts. None has been known to occur in destructive numbers in British Columbia. The larvae are medium-sized loopers: some species are green with white stripes, a few have two colour phases. All species overwinter as naked pupae in the duff.

S. adonis B. & McD. *Pinus ponderosa*, *P. contorta*, *P. monticola*, *Pseudotsuga taxifolia* (3), *Larix occidentalis* (1); southern B.C.; rather uncommon. **Larva:** 1½ inches; head, pale green, dull reddish patch above and before ocelli; body, green; cream-coloured subdorsal stripes (includes abdominal setae ii of Dyar and Forbes) continuous onto the head; broader cream subspiracular stripe.

S. granitata Gn. *Pseudotsuga taxifolia*, *Picea engelmanni*, *P. glauca*, *P. mariana*, *P. sitchensis*, *Tsuga heterophylla*, *Abies lasiocarpa*, *A. grandis*, *A. amabilis*, *Pinus contorta*, *P. monticola*; believed to be accidental on *P. ponderosa* and *Larix* spp. Generally distributed; sometimes very numerous over small areas. In 1949 numerous adults emerged during early fall; normally the species overwinters in the pupal stage. **Larva:** 1½ inches; head, greenish, with dark reddish-brown blotch or herringbone pattern on sides, occasionally also on vertex; body, green; middorsal area

dark; white subdorsal stripe ventrad of setae ii; whitish "bloom" over dorsum; fine blackish lines on dorsum, below subdorsal stripe and on sub-venter (these blackish lines may be obscured by the "bloom"; cream spiracular-subspiracular stripe; white lines on venter.

S. perplexa McD. *Pseudotsuga taxifolia*, *Picea engelmanni*; southern Interior with a few records along the southern and central Coast. **Larva:** apparently similar to *S. granitata*.

S. sexmaculata Pack. *Larix occidentalis*, *L. laricina*; southern Interior on western larch and central Interior north into the Yukon on eastern larch; frequently numerous. Sometimes this species has a partial second brood. **Larva:** length ¾ inch: **green phase** — head and body green; white addorsal lines dorsad of seta i; broader white subdorsal stripe ventrad of ii, bordered below by black line; cream subspiracular stripe; white midventral and subventral lines; no black lines on venter; **brown phase** — head, off-white, with brown blotch or herringbone pattern on vertex; body, off-white, overlaid with brown; irregular broad anteriorly directed dark brown wish-bone mark on the dorsum of each abdominal segment.

S. triviata B. & McD. *Juniperus scopulorum*; Australian, Marguerite, Alexandria, Williams Lake, Mara Meadows, Fort Steele, Hedley. **Larva:** ¾ inch; head, off-white with irregular brown patch through setae ii (Dyar); pale herringbone pattern on vertex;

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frons black; body brownish; small off-white subdorsal patches at anterior margin of each body segment; black irregular V patch containing each abdominal spiracle continuous forming V's on venter of abdominal segments; off-white patch anterior to each spiracle.

S. teucaria Stkr. *Quercus garryana*; southern Vancouver Island. **Larva:** $\frac{3}{4}$ inch; dull lime-green, wide pale subdorsal stripes; yellow spiracular line; ventral and anal prolegs marked with crimson.

S. setonana McD. *Juniperus scopulorum*; southern Interior. **Larva:** 1 inch; greenish head, may have light brown herringbone pattern; white patch on either side of frons containing seta ii (Dyar); body, green (apparently there is also a grey phase); subdorsal stripe broken, irregular; small blackish spot at intersegmental area on dorsum; black V patch through spiracles; white patch anterior to spiracle and rusty patch below; four white lines on venter.

S. neptaria Gn. *Salix* spp.; southern and central Interior, Vancouver Island. **Larva:** 1 inch; head, reddish brown with curved brown band above frons; body, yellow-brown; broken white addorsal lines; brownish patch under abdominal segment 2.

S. hebetata Hlst. *Salix* spp.; Canal Flats, Connell Creek, Manson Creek, LeJeune Lake and at various points in the Yukon between miles 916 and 1190 on the Alaska Highway. **Larva:** 1 inch; head, brownish with black transverse lines above and below frons; body, dark purplish-pink with banded appearance; broken, off-white or yellowish addorsal line and subspiracular stripe; blackish patches about spiracle.

S. continuata Wlk. *Tsuga heterophylla*, *Thuja plicata*; southern Coast. **Larva:** $\frac{1}{2}$ inch; head, large and green; body, bright green with cedar-twigg-like pattern; broken white lines; pale spiracular line.

BOOK REVIEW

Annual Review of Entomology, Vol. 3. (E. A. Steinhaus and R. F. Smith, editors). 1958. Annual Reviews, Inc. Palo Alto, Calif., pp. vii - 520.

A slightly astringent reviewer of entomological books for the Quarterly Review of Biology, Prof. George C. Wheeler, complained (*Ibid* 32 (2): 191) that Vol. 1 of this series "might have been more appropriately entitled an 'Annual Review of Applied Entomology' since 70 per cent of its pages are devoted to that branch". His criticism is no longer valid; Vol. 2 had about 45 per cent economic content, and Vol. 3 has a mere 30 per cent. In this reviewer's opinion, the balance is now about right. Much of the support for the parent society and the Annual Review comes from applied entomologists, entitling them to their one-third share, even to the section on air-blast spraying which seemed particularly to irritate the critic mentioned. Since some of the best current work is applied, or at least economically motivated, the editors can scarcely reduce the economic papers below their present level and still claim to represent the profession.

The volume seems to be top-heavy with U.S. contributions in the proportion of 15 to 8 for the rest of the world. Origins of the latter are: the U.K. 3, Canada 3, Australia 1, and France 1. The non-English

speaking world seems to be poorly represented. Of the 64 papers in the first 3 volumes, only 2 have come from Continental Europe, none from Scandinavia, India or Russia. Would not an occasional review by region as well as by topic be acceptable? A chapter entitled, for example, Entomology in the U.S.S.R. would be read with considerable interest.

Two minor irritants persist in Vol. 3, both concerning the citation of literature. In soliciting a review, could not the editors suggest that the names of authors cited be left out of the text, except when discussing differences of opinions as in A. J. Nicholson's "Dynamics of Insect populations"? The text is more swiftly read without them, and the reputation of the reviewer himself should be the guarantee that only the best contributions in the field are being surveyed. The second criticism follows from the first.

In a review, the sources are of prime interest, hence it is no more than courteous to list them alphabetically so that they are quickly available. Fortunately, only 9 of the 23 reviews have non-alphabetic references, not including the largest list with 285 titles.

The authors and topics for Vol. 4 have been announced. It appears that the high standards are to be maintained.

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