

ANNOTATED LIST OF FOREST INSECTS OF BRITISH COLUMBIA, PART XIV, *POLYGONIA*, *NYMPHALIS* AND *LIMENITIS* (NYMPHALIDAE)

B. A. SUGDEN¹

Many members of the family Nymphalidae are found in British Columbia but only a few species, regarded as economically unimportant, feed on the foliage of forest trees. Small localized outbreaks of some species have been recorded in British Columbia but all were of short duration. The caterpillars are usually spiny, pale to dark and obscurely or strikingly marked. The chrysalids are angularly tuberculate, naked, dull or marked with gold or silver, and are suspended by the cremaster in sheltered sites. The number of collections per host is shown only when fewer than five.

Polygonia faunus Edw. - *Betula* spp. (4 records), *Salix* spp. (3). Throughout British Columbia, including Vancouver Island, uncommon on forest trees. LARVA: 1 $\frac{3}{8}$ inches; head bilobed, dull black marked with white, pale chazalae and setae, prominent black scoli armed with spines on vertex of each lobe; body pale brown with irregular markings of yellow, dull white and medium brown, dull white dorsal stripes; TI with a band of small tubercles extending to sides; pale addorsal and spiracular scoli with black-tipped spines on TII-III; middorsal, addorsal, supraspiracular and subspiracular scoli on A1-7 are pale yellowish white, except lower half of supraspiracular scoli which are pale brown, all with pale black-tipped spines; A8 similar but with two supraspiracular scoli, A9 with one pair of supraspiracular scoli, black-tipped spines and dark brown anal shield; venter paler than dorsum with sparse but prominent setae; thoracic legs and prolegs marked dark brown.

Polygonia zephyrus Edw. - *Salix* sp. (1 record), *Alnus* sp. (2) and the shrubs *Menziesia ferruginea* Smith, *Ribes* spp. Throughout British Columbia, including Vancouver Island, uncommon on forest trees. LARVA: 1 $\frac{3}{8}$ inches; head moderately bilobed, shiny black with white markings and white chazalae and setae, black scoli with black spines on vertex of each lobe; body with dorsum of TI-III and A1 and 2 dull yellowish orange; A3-9 dull white lightly marked brown, dark brown and black; pale yellow addorsal scoli TI-III, pale middorsal scoli A1-8; all scoli with pale black-tipped spines, anal shield black; lateral dull white, heavily marked pale and dark brown, irregular dull yellow supra- and subspiracular lines, supraspiracular scoli on TII-III and A9, supra- and subspiracular scoli A1-A8, all with

pale setae; thoracic legs and anal prolegs marked black; venter dull orange finely marked pale brown, darker then dorsum.

Polygonia gracillis C. & R. - *Salix* sp. (2 records), Clemina, B.C. LARVA: similar to *P. zephyrus* except that in the dark phase, pale portions are washed with pale buff and brown.

Nymphalis j-album Bdv. & LeC. - *Betula* sp., *Salix* spp. Southern interior and lower Fraser Valley of British Columbia; uncommon on forest trees. LARVA: 1 $\frac{5}{8}$ inches; head dull black, moderately bilobed with prominent black spined scoli on vertex of each lobe and setae arising from white chelazae; body pale yellow profusely marked medium and dark brown; yellow middorsal line on TI, irregular pale yellow addorsal lines TII-A8; addorsal and subdorsal pale yellow chazalae with dark brown or black setae on TI, middorsal and subdorsal black spined scoli TII-A8, subdorsal black spined scoli on A9; black spined spiracular scoli TII-III, black supra- and pale yellow subspiracular scoli A1-8, pale yellow subspiracular line; venter pale, sparsely marked pale brown with white setae arising from pale chazalae; thoracic legs and prolegs dull yellow marked pale brown.

Nymphalis antiopa Linn. - *Salix* spp. *Populus* spp. Throughout British Columbia, including Vancouver Island. Common, occasionally causing severe defoliation of individual trees. LARVA: 1 $\frac{7}{8}$ inches; head dull black with white setae on black chazalae; body black banded with rows of small white spots; A1-7 with one large yellowish-orange to red middorsal spot on each segment, broken middorsal line TII-A8, black setaceous middorsal scoli A4-8 and black setaceous addorsal scoli TII-A9; black setaceous spiracular scoli TII-III, black setaceous supra- and subspiracular scoli A1-8; venter flecked with small white spots, black midventral line; thoracic legs and anal prolegs black, abdominal prolegs yellowish-orange to dull red.

Limenitis arthemis Dru. - *Populus tremuloides* Michx. *Salix* spp. Central and northern British Columbia; uncommon on forest trees. LARVA: 1 $\frac{3}{8}$ inches; head pale brown, bilobed with one pair modified scoli on vertex of each lobe and short pale setae on prominent chazalae; body dark yellowish brown or olive-green; dorsum of TI-II and A4-6 pale mauve or white extending ventrad of A5, occasionally suffused with pale pink; remainder sparsely marked dark brown and black; two

¹ Forest Research Laboratory, Department of Fisheries and Forestry, Vernon, B.C.