



KEY TO GEOMETRID PUPAE OF THE
BRITISH COLUMBIA COAST FOREST

by
D. EVANS

FOREST RESEARCH LABORATORY
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INTRODUCTION

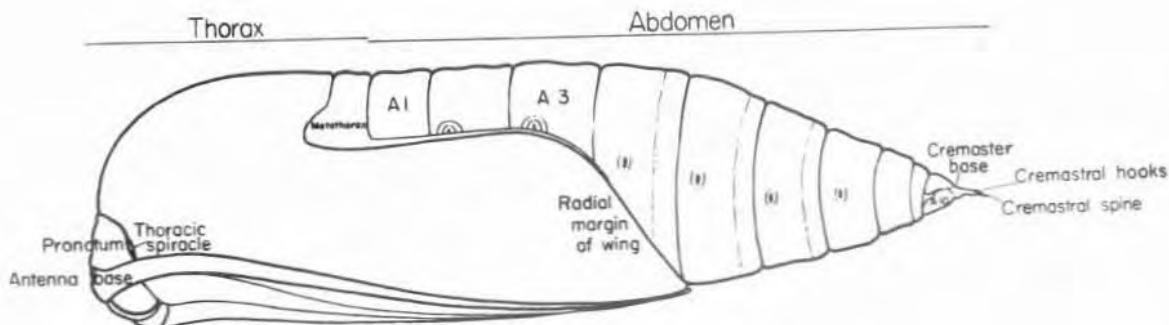
The family Geometridae is perhaps the most important group of lepidopterous defoliators, and is observed and collected in large quantities during annual insect surveys. Identification of geometrid larvae may be inconclusive because of the various color phases, differences between instars, age, host, condition, similarity of species, etc.; this key was devised as a simple means of identifying geometrid pupae. It has been useful for determining parasite hosts when the only host material was pupal remains, and for confirming identifications based on larvae or adults.

The 83 species listed herein include all the common geometrids of British Columbia coast forests, and also others less frequently found. Some species were omitted because of insufficient data, notably: Anagoga occiduaria Walker, Eupithecia usurpata Pearsall, Itame anataria Swett, and E. pseudotsugata MacKay; the latter could not be consistently distinguished from E. longipalpata Packard. Optimum magnification for key work is approximately 40x, although many of the critical features are visible with less.

Pupal characteristics may vary intraspecifically, including a wide range in overall size and frequent deformities. Teneral pupae are generally unsuitable for study. The species distribution is more or less throughout the coastal region of the province, unless otherwise stated. The pupal period given represents the near-maximum date-range for the occurrence of healthy pupae for the entire coastal area. The key does not require the separation of sexes. Comments on occurrence are based on Survey records as associated with host plants. Species are considered abundant when they exceed 50 specimens in individual collections, or common in quantities of 10-50 specimens. Scarce, denotes 3-10 specimens annually, and rare means that only one or two are occasionally found. The following tree host abbreviations are those regularly used by the Survey.

HOST TREE ABBREVIATIONS

Abbreviation	Common name	Scientific name
A	Trembling aspen	<u>Populus tremuloides</u> Michx.
Arb	Arbutus	<u>Arbutus menziesii</u> Pursch
B	Amabilis fir	<u>Abies amabilis</u> (Dougl.) Forb.
Ba	Alpine fir	<u>A. lasiocarpa</u> (Hook.) Nutt.
Bg	Grand fir	<u>A. grandis</u> (Dougl.) Lindl.
Bi	Birch	<u>Betula</u> spp.
C	Western red cedar	<u>Thuja plicata</u> Donn
Cot	Cottonwood	<u>Populus trichocarpa</u> Torr. & Gray
D	Red alder	<u>Alnus rubra</u> Bong.
F	Douglas fir	<u>Pseudotsuga menziesii</u> (Mirb.) Franco
H	Western hemlock	<u>Tsuga heterophylla</u> (Raf.) Sarg.
L	Western larch	<u>Larix occidentalis</u> Nutt.
M	Maple	<u>Acer</u> spp.
Mb	Broadleaf maple	<u>A. macrophyllum</u> Pursch
Mv	Vine maple	<u>A. circinatum</u> Pursch
O	Garry oak	<u>Quercus garryana</u> Dougl.
P1	Lodgepole pine	<u>Pinus contorta</u> Dougl.
Pw	Western white pine	<u>P. monticola</u> Dougl.
Py	Yellow pine	<u>P. ponderosa</u> Laws.
S	Sitka spruce	<u>Picea sitchensis</u> (Bong.) Carr.
Se	Engelmann spruce	<u>P. engelmanni</u> Parry
W	Willow	<u>Salix</u> spp.



KEY

1. Cremaster present 2
No cremaster, the end of the pupa blunt and wrinkled
Gabriola dyari
9-12 mm. long, relatively stout. Surface coriaceous, in some areas finely granulate with shallow indistinct punctures. Associated with Bg, C, F, H and S; usually found in the ground litter, or sometimes webbed into the foliage. Scarce - common. July.
2. (1) Cremaster with two, three or four pairs of hooks 23
Cremaster with only a single, bifurcate or double terminal spine or hook 3
3. (2) Thoracic spiracle obvious 8
Thoracic spiracle reduced to a fine dark line, or not apparent . . 4
4. (3) Less than 14 mm. long 5
More than 14 mm. long Lycia rachelae
14-18 mm. long; stout, sharply pointed. Coarsely coriaceous, moderately punctate - each puncture minutely carinate along its rim. Also with two short sharp subdorsal projections at the cremastral base, cremaster slightly flattened. Associated with Bi and W in East Prince Rupert District; rare. Aug. - April.
5. (4) Dorsum of thorax smooth or finely rugo-reticulate 6
Dorsum of thorax finely granulate Protitame matilda
8-9 mm. long. Cremastral spine very long, straight and slender; bifurcate at the tip. Associated with A, B and W on Vancouver Island. Scarce. Overwinters in ground litter, Oct. - June.
6. (5) More than 10 mm. long 7
Less than 10 mm. long Operophtera occidentalis
6-10 mm. long; rotund. Glossy brown; finely coriaceous, sparse punctuation. Associated with Bi, Mb, O, spirea, W and other deciduous shrubs. Usually webbed into the foliage. July - Dec. Scarce - common, occasionally abundant in localized areas.

7. (6) Dorsum of thorax smooth except for fine reticulation. Cremastral spines directed longitudinally, slightly recurved
Hesperumia sulphuraria
12-14 mm. long. Associated with Bi, F, spirea, W and shrubs in the south; scarce. Webbed into the foliage or in the ground litter; June.
- Dorsum of thorax finely rugose; cremastral spines projecting laterally, straight
Brephos infans oregonensis
12-15 mm. long. Sub-cylindrical, relatively blunt at both ends; the thoracic section about as thick as the abdomen, with the margins appearing parallel from any lateral aspect; frontal area, including the eyes, deeply punctate. Associated with deciduous shrubs and herbage, rarely with D. Overwinters in the topsoil, June - April.
8. (3) Thoracic spiracle prominently extruded, beanlike 14
Thoracic spiracle foveate, or scarcely elevated 9
9. (8) Thoracic spiracle slightly elevated above a surrounding sulcus 11
Thoracic spiracle deeply foveate, no central elevation 10
10. (9) Thoracic spiracle sub-triangular in outline
Stamnodes blackmorei
8-10 mm. long. Finely coriaceous with scattered punctation. Cremaster wide, blunt and smooth; sloping downwards, the two spines diverging widely from the apical corners. Commonly associated with waterleaf on southern Vancouver Island.
Usually in ground litter; June.
Thoracic spiracle elongate, slot-like
Lobophora simsata
7-9 mm. long; stubby. Most of the thorax reticulate, most of the abdomen punctate. Associated with A and W on Vancouver Island and Queen Charlotte Islands. Overwinters in ground litter, Sept. - Feb.; scarce.
11. (9) More than 10 mm. long 12
Less than 10 mm. long
Itame loricaria julia
9-10 mm. long. Rare, associated with A, Bi, D and W in the north. In foliage, bark crevices or ground litter.
July - Aug.
12. (11) Dorsum of A10 nearly smooth except for some fine wrinkles . . . 13
A10 coarsely rugose
Coniodes plumogeraria
14-17 mm. long. Metathorax coarsely reticulate, but impunctate except for setal punctures. Abdominal punctures large, sub-circular and foveate. Cremaster V-shaped.
Associated with Mb, O, rose, W and other deciduous shrubs in the south. In topsoil, Aug. - Jan.; scarce.

13. (12) Metathorax finely rugose, sparsely punctate near the posterior margin *Ectropis crepuscularia*
12-15 mm. long. Metathorax nearly smooth except for some fine rugosity, and small punctures near the posterior margin; abdominal punctures relatively small. Cremaster Y-shaped. Usually common in association with most conifers except P, occasionally with deciduous plants. Overwinters in topsoil, Oct. - April.
- Metathorax coriaceous, nearly smooth, impunctate *Stenoporpia albescens*
14-16 mm. long. Associated with most conifers, usually scarce. Usually webbed into the foliage or bark crevices; July.
14. (8) Less than 19 mm. long 15
More than 19 mm. long *Biston cognataria*
19-25 mm. long. Cremaster with two short stout sub-dorsal projections sub-basally. Commonly found in association with deciduous hosts, rarely with conifers. Overwinters in topsoil, Oct. - May.
15. (14) Cremaster more or less terete at its midsection 16
Cremaster partially flattened *Anacamptodes emasculata*
13-15 mm. long; A10 generally smooth. Associated with deciduous trees and shrubs, occasionally with F or H. Usually webbed in the leaves and dropping to the ground where it overwinters, Oct. - June; scarce - common.
16. (15) Thoracic spiracle elongate; usually less than 14 mm. long . . . 17
Thoracic spiracle prominent, irregularly sub-spherical; usually more than 14 mm. long *Erranis vancouverensis*
12-19 mm. long. Thorax reticulate. Abdomen smooth but moderately densely punctate, punctures sub-circular and semi-foveate, irregular in size and distribution. Cremastral base rugo-reticulate. Associated with many deciduous trees and shrubs, rarely with conifers. Scarce in the north, but common in the south, occasionally abundant. In ground litter, Aug. - Sept.
17. (16) Dorsum of abdomen smooth, with very large, more or less uniform, circular foveate punctures *Semiothisa* 20
Dorsum of abdomen finely rugose or smooth, with small scattered shallow punctures of irregular size 18
18. (17) Metathorax impunctate 19
Metathorax punctate *Melanolophia imitata*
11-14 mm. long. Commonly associated with Bg, C, F, H and S, occasionally abundant. Overwinters in topsoil, Sept. - May.

19. (18) Metathorax finely rugose Neoalcis californiaria
10-13 mm. long. Commonly associated with most conifers in the south, and occasionally with such deciduous trees as D, O and W. In bark crevices, ground litter or foliage during July.
Metathorax finely coriaceous, nearly smooth
Protoboarmia porcellaria indicataria
10-12 mm. long. Associated with most conifers, but scarce. Webbed into the foliage, in bark crevices or in ground litter; June - July.
20. (17) Spiracles much the same color as their surrounding areas, or darker 21
Spiracles contrastingly paler than their surrounding areas 22
21. (20) Thoracic spiracle more pointed at the upper end than the lower; associated with coniferous host plants
Semiothisa signaria unipunctaria
10-12 mm. long. Commonly associated with B, F, H, Pl, Pv, Py, S. Overwinters in ground litter or bark crevices; Oct. - May.
Thoracic spiracle with the ends equally pointed; associated with deciduous hosts S. ulsterata
9-11 mm. long. Rare, associated with Bi and D on Vancouver Island. Overwinters in ground litter, Sept. - March.
22. (20) Dorsum of the cremaster base irregularly rugo-reticulate; associated with O S. teucaria
12-14 mm. long. Rare, on southern Vancouver Island. Overwinters in ground litter or bark crevices, Sept. - April.
Dorsum of cremaster base longitudinally rugostriate; associated with W S. neptaria sinuata
12-14 mm. long. Rare, on Vancouver Island. Overwinters in ground litter, Sept. - May.
23. (2) Anterior end well rounded, bullet-like 25
Anterior truncate, sharply angulate Cosymbia 24
24. (23) Pale brown with fine dark dots; associated with O on southern Vancouver Island C. dataria
10-13 mm. long. Usually webbed into foliage and falling to the ground, but sometimes overwintering in bark crevices, Oct. - June. Scarce.
Pale green with small dark green blotches; associated with deciduous hosts other than O C. pendulinaria griseor
8-10 mm. long. Associated with Bi, D, W, and sometimes with conifers: F, H, Pl; probably with many shrubs also. Usually falling with the foliage and overwintering in ground litter, Oct. - April. Scarce.
25. (23) Thoracic spiracle slit-like, the margins often slightly distended 29
Thoracic spiracle prominently extruded, bean-like 26

- | | | |
|----------|--|------------------------------|
| 26. (25) | Thoracic spiracle elongate, at least 3x as long as wide; 10-12 mm. long | 27 |
| | Thoracic spiracle sub-oval, approximately $1\frac{1}{2}$ x as long as wide; either less than 10 or more than 12 mm. long | 28 |
| 27. (26) | Cremaster as long as wide, or longer <i>Hyperetis amicaria</i> | |
| | Cremaster rugose, terminal spines nearly twice as large as the lateral hooks. Associated with many deciduous trees and shrubs. Overwinters in ground litter, Oct. - May. Scarce. | |
| | Cremaster obviously broader than long | |
| | <i>Plagodis phlogosaria approximaria</i> | |
| | Cremaster rugose. Rarely associated with Bi, D, W, occasionally C or H, and shrubs. Overwinters in bark crevices or ground litter, Sept. - April. | |
| 28. (26) | Approximately 9 mm. long; Al punctate; vertex of head irregularly corrugated | <i>Eupithecia scabrogata</i> |
| | Rarely associated with Arb on southern Vancouver Island. | |
| | Overwinters in ground litter or bark crevices, Aug. - April. | |
| | 12-16 mm. long. Al impunctate; vertex of head coriaceous . . . | <i>Selenia alciphearia</i> |
| | Cremaster short and wide, scarcely tapered. Associated with Cascara, D, sycamore, and miscellaneous shrubs. Overwinters in ground litter, Sept. - May. Rare - scarce. | |
| 29. (25) | Not metallic in color | 30 |
| | Glittering metallic gold in color . . . <i>Sicya macularia agyllaria</i> | |
| | 12-15 mm. long. Dead or empty pupae may lose their metallic lustre, but still retain a distinctive translucent shellacked appearance. Rarely associated with D, rose, W and other shrubs. In foliage or ground cover; Aug. | |
| 30. (29) | ALLOVER monicolor glossy dark brown, although sometimes dark green when new; no matt areas or darker spots or pattern (excluding the pre-emergence wing patterns); wings not paler than the body . . . | 47 |
| | Striped and/or spotted or blotched, sometimes only on the dorsum of the basal abdominal segments; may be translucent pale grey or green; wing covers may be paler than the rest of the body . . . | 31 |
| 31. (30) | Brown | 35 |
| | Green | 32 |
| 32. (31) | Antennal bases black, eyes usually red-brown | 33 |
| | Antennal bases and eyes not conspicuously darker | 34 |

33. (32) Cremastral hooks small but strongly developed, dark, flattened and prominently hooked Enypia packardata
10-15 mm. long. Associated with B, C, F, H and other conifers in the south. Usually webbed into the foliage, sometimes into bark crevices or occasionally in ground litter; May - June.
Scarce - common.
- Cremastral hooks weakly developed, pale brown, short and finely hooked Phengommataea edwardsata
15-17 mm. long. Rare, associated with F, Pl and Pw in the south. In foliage, bark crevices or ground litter; June.
34. (32) Abdominal setal areas dark, making irregular rows of small dark blotches Neptyia phantasmaria
11-14 mm. long. Commonly associated with conifers in the south, occasionally abundant. In ground litter, bark crevices or foliage, Aug. - Sept.
- Abdomen mostly monicolor, not spotted Dysstroma citrata
11-13 mm. long. A10 with a small but conspicuous foveate notch on its anterior dorsum. Associated mostly with apple, D, W and deciduous shrubs; occasionally with F, H or Se; scarce. Usually webbed into foliage; July.
35. (31) Dorsum of thorax smooth, variably reticulate or rugose, not granulate or tuberculate 36
Dorsum of thorax with coarse dense irregular tubercles
Deuteronomos magnarius
18-21 mm. long. Greyish; large off-white spiracles; pro-thorax low-peaked by a median carina; A10 and cremaster longitudinally striate, usually pale margined. Associated with D; scarce. Usually webbed into the foliage; Aug.
36. (35) Pronotum ecarinate or nearly so 38
Pronotum with a massive median carina: high, wide and flattened, with puffy margins, contrastingly pale in color Synaxis 37
37. (36) Associated with coniferous host plants S. pallulata
13-17 mm. long. Dark brown with darker setal blotches, small moderately spaced dark punctures. Usually in foliage, sometimes in bark crevices or ground litter; Aug. Scarce.
Associated with deciduous host plants S. jubaria
14-19 mm. long. Usually in foliage, sometimes in bark crevices or ground litter; Aug. Scarce.
38. (36) Variable brown, any dark antennal markings broken or obscured by other pigmented areas 39
Pale brown, the antennae conspicuously dark, as also A4-6 annulations; few other markings Enypia venata
15-21 mm. long. Thorax rugo-reticulate. Abdomen densely punctate except for A9 which is smooth; A10 longitudinally rugostriate except for a smooth sinuate depression.
Associated with most conifers, scarce - common. Usually webbed into foliage or ground litter, occasionally in bark crevices; May - June.

46. (45) Usually less than 14 mm. long; usually associated with coniferous hosts outside of southern Vancouver Island
L. fiscellaria lugubrosa
11-14 mm. long; usually smaller and darker than *L. somniaria*; commonly associated with most conifers, sometimes with deciduous trees, occasionally abundant. In foliage, bark crevices or ground litter, Aug. - Sept.
Usually more than 14 mm. long; usually associated with O on southern Vancouver Island *L. somniaria*
13-17 mm. long. Occasionally associated with D, F, M or W; frequently abundant in localized areas. Usually in ground litter or bark crevices, sometimes in foliage; July - Aug.
47. (30) Thoracic spiracle less than 1/3 as long as half the length of the posterior prothoracic margin 48
Thoracic spiracular slit more than 1/3 (nearly $\frac{1}{2}$) as long as half the length of the posterior margin of the prothorax; overall length, 12-17 mm. *Campaea perlata*
The terminal pair of cremastral spines more than twice the size of the lateral cremastral hooks. Commonly associated with a wide variety of both deciduous and coniferous hosts; usually webbed into the foliage; June - Aug.
48. (47) Shiny brown, no powdery covering 49
Covered by a white waxy bloom; usually less than 11 mm. long .
Plemyria georgii
9-12 mm. long. Four pairs of cremastral hooks so spaced that the curled ends of one pair extend just past the base of the next pair behind. Associated with Bi, D, M and W; in bark crevices, foliage or ground litter; July - Aug. Scarce.
49. (48) Cremastral spines completely separate 52
Cremastral spines distinctly fused for a distance at least as long as their combined basal width (bifurcate) 50
50. (49) Abdominal segments with depressed punctation 51
Abdominal segments with elevated punctures, appearing nearly granulate *Triphosa haesitata*
13-16 mm. long. Commonly associated with cascara in the southwest, occasionally with F, O and shrubs; usually in ground litter, sometimes in foliage; Aug.
51. (50) A3 spiracle concealed by wing covers *Epirrita autumnata*
8-12 mm. long. Commonly associated with most conifers except P. Webbed into the foliage, bark crevices or in ground litter; Aug.
A3 spiracle entirely visible *Rheumaptera hastata*
9-12 mm. long. Associated with Bi, D, shrubs and occasionally conifers. Overwinters in ground litter, Sept. - April. Scarce - abundant.

59. (54) An irregular tapering sulcus extending diagonally up and back from the antero-lateral margin of A10, approximately halfway across the segment 61
No antero-lateral sulcus on A10, although sometimes a short emargination 60
60. (59) Metathorax punctate Epirrita pulchraria
7-10 mm. long. Associated with Bg, H and S; scarce.
Webbed into foliage, bark crevices or ground litter;
Sept. - Oct.
Metathorax impunctate Nyctobia limitaria
9-11 mm. long. Commonly associated with most conifers,
occasionally abundant. Usually overwinters in ground litter, Aug. - April.
61. (59) More than 11 mm. long 63
Less than 11 mm. long Deilinia 62
62. (61) From Vancouver Island and vicinity . D. erythemaria erythemaria
9-11 mm. long. Associated with W; scarce. Overwinters in ground litter, Sept. - May.
From areas north of Vancouver Island . D. exanthemata bryantaria
9-10 mm. long. Associated with Bi and W; scarce. Overwinters in ground litter, Oct. - May.
63. (61) Metathorax distinctly less punctate than A1, sometimes nearly impunctate 64
Metathorax as densely punctate as A1 Coryphista meadi
12-13 mm. long. The two anterior pairs of cremastral hooks nearly in horizontal alignment. Associated mostly with herbage or shrubs; scarce. Overwinters in fallen leaves and ground litter; Oct. - June.
64. (63) The thoracic spiracle longer than, or equal to, the distance from its lower end to the lateral margin of the thorax 65
The thoracic spiracle shorter than the distance to the lateral thoracic margin Pero 66
65. (64) 11-13 mm. long Anthelia hyperborea
Slender; light brown; A8 usually impunctate. Associated with most conifers, occasionally with D; scarce - common.
Usually in ground litter; generally overwintering Aug. - April.
13-15 mm. long Epirhanthis substriataria danbyi
Thorax finely and variably reticulate. Associated with W and miscellaneous shrubs in the south; scarce. Found deep in ground litter, Sept. - March.

72. (71) Thoracic spiracle sub-elliptic, approximately twice as long as wide, no appearance of pubescence 73
Thoracic spiracles small and sub-circular, appearing thickened and slightly pubescent E. ravocostaliata
8-9 mm. long. Associated with W on Vancouver Island and Gulf Islands. Overwinters in ground litter, Oct. - April; scarce.
73. (72) Dorsal surface of cremastral base so finely rugo-punctate as to appear punctate-granulate; usually a frontal fovea between the antennal bases; usually less than 8 mm. long 74
Dorsal surface of cremastral base finely rugose; no frontal fovea; 8-9 mm. long E. olivaceae
Associated with Bg, cherry, crab-apple, F, H, etc. in the south. Usually overwinters in ground litter, July - March; scarce.
74. (73) The moveable abdominal segments with dense, relatively large, shallowly concave, circular punctures; usually associated with spruce E. filmata
7-8 mm. long. Associated with B, H, S, Se and Sw; scarce, but more common in the north. Usually overwinters in bark crevices, but frequently in ground litter or foliage; Aug. - April.
The punctures on the moveable abdominal segments scattered, small, relatively deep, and sub-circular; usually associated with F .
E. annulata
About 8 mm. long. Commonly associated with Ba, Bg, F, H and S. Usually overwintering in bark crevices, but frequently in foliage or ground litter; Aug. - April.
75. (71) More than 7 mm. long 76
6-7 mm. long E. misturata
Associated with apple and cascara in the southwest. Usually in the foliage or bark crevices, July; rare.
76. (75) A8 punctate, or less than 8 mm. long 77
A8 impunctate; 9-10 mm. long E. vancouverata
Associated with Arb, F, H and O in the southwest. Overwinters in ground litter or bark crevices, Oct. - June; scarce.
77. (76) The anterior, or first, cremastral hook extending well beyond the base of the second hook - for half way along or more 79
The first cremastral hook extending just past the base of the second hook - one third the way along or less 78

78. (77) Usually more than 8 mm. long; usually associated with F or H . . .
E. longipalpata
 About 9 mm. long. Associated with Bg, C, F, H and S;
 scarce. Usually in bark crevices or foliage during June,
 but occasionally overwintering Oct. - May.

Usually less than 8 mm. long; usually associated with P
E. palpata
 7-8 mm. long. Associated with F, Pl, Pw and Se in the
 north. Overwinters in bark crevices or ground litter,
 Sept. - May; scarce.

79. (77) Cremaster smooth or finely rugose, seldom any punctuation . . . 80
 Cremaster finely punctate over most of its surface except the
 apex
E. kootenaiata
 About 8 mm. long. Rarely associated with D and W on the
 southwest coast. Overwinters in ground litter or bark
 crevices, Sept. - May.

80. (79) Usually less than 8.5 mm. long; seldom associated with C . . . 81
 Usually more than 8.5 mm. long; usually associated with C
E. unicolor
 8-10 mm. long. Commonly associated with C and H. In bark
 crevices, foliage or ground litter, May - June.

81. (80) Al sparsely but conspicuously punctate; associated with pines or
 deciduous trees
E. transcanadata
 Al impunctate or nearly so; usually associated with conifers other
 than P
 7-8 mm. long. Associated with B, Ba, C and H in the north.
 Overwinters in ground litter or bark crevices, Sept. - May;
 scarce.

82. (81) The first apparent wing cell along the costal margin (next to the
 antenna), more or less regularly and horizontally rugose; the
 wings coarsely coriaceous with the veins prominently elevated;
 associated with P
E. ornata
 8-9 mm. long. Associated with Pl and Pw in the south;
 scarce. Usually overwinters in ground litter, Oct. - April.
 The entire wing irregularly coriaceous with slightly elevated
 venation; associated with deciduous host plants
E. maestosa harlequinaria
 7-9 mm. long. Associated with many deciduous trees, shrubs
 and small plants in the southwest; scarce. Usually over-
 winters in bark crevices or ground litter, Oct. - March.

INDEX

Couplet No.

<i>Anacamptodes emasculata</i> Dyar	15
<i>Anthelia hyperborea</i> Hulst	65
<i>Besma quercivoraria</i> Guenée	43
<i>Biston cognataria</i> (Guenée)	14
<i>Brephos infans oregonensis</i> Swett	7
<i>Campaea perlata</i> Guenée	47
<i>Caripeta aequaliaria</i> Grote	40
<i>Caripeta angustiorata</i> Walker	41
<i>Caripeta divisata</i> Walker	41
<i>Coniodes plumogeraria</i> Hulst	12
<i>Coryphista meadi</i> Packard	63
<i>Cosymbia dataria</i> Hulst	24
<i>Cosymbia pendulinaria griseor</i> McDunnough	24
<i>Deilinia erythemaaria erythemaaria</i> (Guenée)	62
<i>Deilinia exanthemata bryantaria</i> Taylor	62
<i>Deuteronomos magnarius</i> (Guenée)	35
<i>Dysstroma citrata</i> Linnaeus	34
<i>Ectropis crepuscularia</i> Schiffermuller	13
<i>Enypia packardata</i> Taylor	33
<i>Enypia venata</i> Grote	38
<i>Epirrhantthis substriataria danbyi</i> Hulst	65
<i>Epirrita autumnata</i> (Guenée)	51

Couplet No.

<i>Epirrita pulchraria</i> (Taylor)	60
<i>Erranis vancouverensis</i> Hulst	16
<i>Eupithecia annulata</i> Hulst	74
<i>Eupithecia filmata</i> Pearsall	74
<i>Eupithecia harrisonata</i> Mackay	70
<i>Eupithecia kootenaiata</i> Dyar	79
<i>Eupithecia longipalpata</i> Packard	78
<i>Eupithecia luteata bifasciata</i> Dyar	70
<i>Eupithecia maestosa harlequinaria</i> Dyar	82
<i>Eupithecia misturata</i> Hulst	75
<i>Eupithecia olivacea</i> Taylor	73
<i>Eupithecia ornata</i> Hulst	82
<i>Eupithecia palpata</i> Packard	78
<i>Eupithecia ravocostaliata</i> Packard	72
<i>Eupithecia scabrogata</i> Pearsall	27
<i>Eupithecia transcanadata</i> Mackay	81
<i>Eupithecia unicolor</i> Hulst	80
<i>Eupithecia vancouverata</i> Taylor	76
<i>Gabriola dyari</i> Taylor	1
<i>Hesperumia sulphuraria</i> Packard	7
<i>Hydriomena furcata</i> Thunberg	58
<i>Hydriomena irata</i> Swett	55
<i>Hydriomena manzanita</i> Taylor	56

Couplet No.

Hydriomena nubilofasciata	Packard	53
Hydriomena renunciata columbiata	Taylor	58
Hydriomena speciosata	Packard	57
Hyperetis amicaria	Herrich-Schaeffer	28
Itame loricaria julia	Hulst	11
Lambdina fiscellaria lugubrosa	(Hulst)	46
Lambdina somniaria	(Hulst)	46
Lobophora simsata	Swett	10
Lycia rachelae	(Hulst)	4
Lygris xyloina	Hulst	44
Melanolophia imitata	Walker	18
Nematocampa filamentaria	Guenee	43
Neoalcis californiaria	Packard	19
Neptynia phantasmaria	Strecker	34
Neptynia umbrosaria nigrovenaria	Packard	45
Nyctobia limitaria	Walker	60
Operophtera occidentalis	Hulst	6
Pero behrensarius	Packard	66
Pero morrisonarius	Henry Edwards	66
Phengommataea edwardsata	Hulst	33
Plagodis phlogosaria approximaria	Dyar	28
Plemyria georgii	Hulst	48
Protitame matilda	Dyar	5
Protoboarmia porcellaria indicataria	Walker	19

Couplet No.

Rheumaptera hastata (Linnaeus)	51
Selenia alciphearia Walker	27
Semiothisa neptaria sinuata Packard	22
Semiothisa signaria unipunctaria Wright	21
Semiothisa teucaria Strecker	22
Semiothisa ulsterata Pearsall	21
Sicya macularia agyllaria Walker	29
Stamnodes blackmorei Swett	10
Stenoporpia albescens Hulst	13
Synaxis jubaria Hulst	37
Synaxis pallulata Hulst	37
Triphosa haesitata (Guenee)	50
Venusia cambrica Curtis	68
Venusia pearsalli Dyar	68