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CHECKLIST OF SASKATCHEWAN MOTHS: PART 18-GEOMETRIDAE (4), LARENTIINAE

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This is the completion of the list of Saskatchewan geometrid moths. The first geometrid article was published in *Blue Jay*, Volume 64, Number 2.

Unless otherwise indicated, all the species are represented in the Royal Saskatchewan Museum collection in Regina. The species are arranged according to the website of Jim Troubridge and Don Lafontaine, *The Moths of Canada*,⁶ with updates to 2006 provided to the author by Greg Pohl. This website also has colour photographs of the moths. The preferred food plants that are listed are primarily based on Prentice.⁴ The common names that are used are mostly according to J. R. J. L. Jones and C. V. Covell, Jr..^{2,3} Recent scientific name changes are according to M. J. Scoble.⁵

In this article, the size and early and late dates of Saskatchewan specimens are given. Abbreviations: s=south, n=north, w=west, e=east, CNC=Canadian National Collection in Ottawa, RSM=Royal Saskatchewan Museum in Regina.

Subfamily LARENTIINAE

Many moths of this group have wavy designs of black and white, or brown and white, and are called Carpets. The pattern of many of them would indeed make a beautiful design for a carpet. The Scallop Shell Moth is nicely marked with many parallel wavy lines like a sea shell. The Spear Mark and White-banded Black have a white marking shaped like a spear point along the outer edge of the forewing. (Figure 1)

The largest genus, *Eupithecia*, contains the Pugs, which are among our smaller species in the family. Some have a wingspread of only 13 mm and can easily be mistaken for microlepidoptera. There are 62 species in this genus in Canada; they were treated in detail by Bolte.¹

Some species of Larentiinae in the genera *Dysstroma*, *Hydriomena*, *Eupithecia* and *Rheumaptera* are difficult to identify, and often require examination of genitalic structures.

Dark Marbled Carpet *Dysstroma citrata* (Linnaeus) - S. Sask., n. to Geikie River (near Wollaston Lake). (24-29 mm) (June 21-August 23) Reported on willow.

Marbled Carpet *Dysstroma truncata* (Hufnagel) - S. Sask., n. to Cumberland House, Anglin Lake and Loon Lake. (27-32 mm) (July 8-Sept.2) Food plant records are confused with those of Walker's Carpet.

Walker's Carpet *Dysstroma walkerata* (Pearsall) - Baldy Lake (Hanson Lake Road). (29 mm) (August 3) Food plant records are confused with those of Marbled Carpet.

Orange-barred Carpet *Dysstroma hersiliata* (Guenée) - S. Sask., n. to Gordon Lake. (25-29 mm) (June 11-July 19) Reported on currant.

Rutland Carpet *Dysstroma rutlandia* McDunnough - Fort Qu'Appelle and Rutland. (26 mm) (July 18).

Graceful Carpet *Dysstroma formosa* (Hulst) - Reported for Sask. by Troubridge and Lafontaine.⁶

Brown Carpet *Dysstroma brunneata* (Packard) - Reported for Sask. by

Troubridge and Lafontaine.⁶ Reported on gooseberry.

Gracefully-lined Carpet *Eulithis gracilineata* (Guenée) - Fort Qu'Appelle and Regina. (31-32 mm) (July 18-Sept.) Reported on Virginia creeper.

Barred Yellow *Eulithis propulsata* (Walker) - S. Sask., n. to Nakweaga Bay, Wollaston Lake. (28-34 mm) (July 11-August 22) Reported on currant.

The Chevron *Eulithis testata* (Linnaeus) - S. Sask., n. to Geikie River (near Wollaston Lake). (26-31 mm) (July 19-Sept.7) Reported on willow.

Banded Gray *Eulithis destinata schistacea* Warren - Central Sask., n. to Umperville River (near Wollaston Lake); s. to Earl Grey. (25-27 mm) (August 5-23) Reported on willow.

Pointed-winged Eulithis *Eulithis flavibrunneata* (McDunnough) - Central Sask., n. to Shoal Lake and Harlan (n.e. of Lloydminster); s. to Fort Qu'Appelle and Earl Grey. (25-31 mm) (August 3-Sept. 13) Reported on willow and aspen.

White Eulithis *Eulithis explanata* (Walker) - Central Sask., n. to Collins Creek (near Wollaston Lake) and Key Lake; s. to White Bear Lake (n. of Carlyle) and Fort Qu'Appelle. (29-34 mm) (July 4-August 20) Reported on blueberry.

The Phoenix *Eulithis xyliina* (Hulst) - Fort Qu'Appelle, Punnichy, Duck Lake and La Ronge. (29-32 mm) (July 11-August 16) Reported on willow.

Clouded Brown *Eustroma semiatrata* (Hulst) - Johnson River (near Wollaston Lake). (29 mm) (August 14) Reported on willowherb.

Small Phoenix *Ecliptoptera silaceata albolineata* Packard - Wildcat Hill Wilderness Area, Big River and Cypress Hills Interprovincial Park (Centre Block). (25-26 mm) (June 14-July 8) Reported on touch-me-not and willowherb.

George's Carpet *Plemyria georgii* Hulst - Big River, Beauval area and Harlan (n.e. of Lloydminster). Reported on alder, willow and birch.

Juniper Carpet *Thera juniperata* (Linnaeus) - Regina. (24 mm) (Oct. 30) Introduced from Europe, and associated in western Canada with ornamental juniper.

Scarce Highflyer *Hydriomena perfracta* Swett - Punnichy, Big River and Meadow Lake. (30-31 mm) (May 14-June 11) Reported on aspen and tamarack.

Black-dashed *Hydriomena*
Hydriomena divisaria frigidata (Walker) - S. Sask., n. to Weekes, Chelan and Prince Albert. (28-29 mm) (May 24-July 17) Reported on white spruce, balsam fir and tamarack.

Renounced Hydriomena *Hydriomena renunciata* (Walker) - N. Sask., s. to Tantallon. (26-29 mm) (June 14-July 10) Reported on alder and spruce.

Ruby-tinted Highflyer *Hydriomena ruberata* (Freyer) - Central Sask., n. to Wadena and Meadow Lake; s. to Maryfield and Regina. (27-29 mm) (May 14-July 30) Reported on willow.

Common Highflyer *Hydriomena furcata* (Thunberg) - S. Sask., n. to Otter Rapids. (26-31 mm) (June 11-August 17) Reported on willow.

Brown Tissue *Triphosa haesitata* (Guenée) - Central Sask., n. to Narrow Hills Provincial Park; s. to Fort

Qu'Appelle. (32-37 mm) (April 26-July; August 12-Oct. 15) Reported on buckthorn and hawthorn. (Worn specimens that have overwintered as adults appear in spring; fresh adults emerge in late summer.)

Barberry Geometer *Coryphista meadii* (Packard) - Halbrite and Rockglen. (34-36 mm) (June 5-30) Reported on barberry. (Our specimens are worn. They are probably strays).

Scallop Shell Moth *Rheumaptera undulata* (Linnaeus) - Throughout Sask. (24-37 mm) (June 15-August 10) Reported on willow and aspen.

Spear Mark *Rheumaptera hastata* (Linnaeus) - N. Sask., s. to Maryfield, Regina and Pike Lake. (21-31 mm) (June 3-July 12) Reported on birch, alder, willow and bog myrtle.

White-banded Black *Rheumaptera subhastata* (Nolcken) - N. Sask., s. to Duck Mountain Provincial Park and Raymore. (20-30 mm) (June 14-July 2) Reported on alder, birch and willow.

Marbled Slate *Entephria multivagata* (Hulst) - Reported for Sask. by Troubridge and Lafontaine.⁶ Reported on White Spruce.

Red-fringed Carpet *Mesoleuca ruficillata* (Guenée) - Central Sask., n. to Sturgeon Landing and Meadow Lake Provincial Park; s. to Maryfield and Fort Qu'Appelle; also in Cypress Hills Interprovincial Park (Centre Block). (25-28 mm) (May 22-June 28) Reported on birch.

Double-banded Carpet *Spargania magnoliata* Guenée - Narrow Hills Provincial Park, Big River and Cypress Hills Interprovincial Park (Centre Block). (24 mm) (July 17) Reported on willowherb.

White-barred Black *Spargania luctuata* ([Denis & Schiffermüller]) - Wallwort, Big River and Cypress Hills Interprovincial Park (Centre Block). (24-25 mm) (June 14-July 5) Reported on willowherb and bedstraw.

Square-patched Carpet *Perizoma basaliata* (Walker) - Big River. (18 mm) (July 18-August 15)

Southern Carpet *Perizoma custodiata* (Guenée) - Fort Qu'Appelle, Grasslands National Park (East and West Blocks) and Val Marie. (20-26 mm) (May 26-August 24).

Brindled Wave *Anticlea vasiliata* Guenée - Bainbridge (n. of Hudson Bay), Dore Lake, Meadow Lake and Cypress Hills Interprovincial Park (Centre Block). (23-29 mm) (May 14-June 2) Reported on raspberry.

Many-lined Carpet *Anticlea multiferata* (Walker) - N. Sask., s. to Kamsack and Meadow Lake Provincial Park. (22-25 mm) (May 31-June 25) Reported on willowherb.

Topaz Carpet *Stamnodes topazata* (Strecker) - Kamsack and Bjorkdale. (22-24 mm) (May 13)

Pink-banded Carpet *Xanthorhoe labradorensis* (Packard) - Central Sask., n. to Nipawin Provincial Forest (e. of Nipawin); s. to Roche Percee and Fort Qu'Appelle. (19-25 mm) (June 11-July 18) Reported on plants in the mustard family.

Packard's Carpet *Xanthorhoe packardata* McDunnough - White Bear Lake Resort. (n. of Carlyle), Fort Qu'Appelle and Buffalo Narrows. (19-25 mm) (June 12-July 17) Reported on alyssum.

Northern Carpet *Xanthorhoe abrasaria* (Herrich-Schäffer) - N. Sask., s. to Weekes and Loon Lake; also in Cypress Hills Interprovincial Park (Centre Block). (22-25 mm) (July 7-August 15).

Broken-banded Carpet *Xanthorhoe iduata* (Guenée) - Preeceville (24 mm) (June 23).

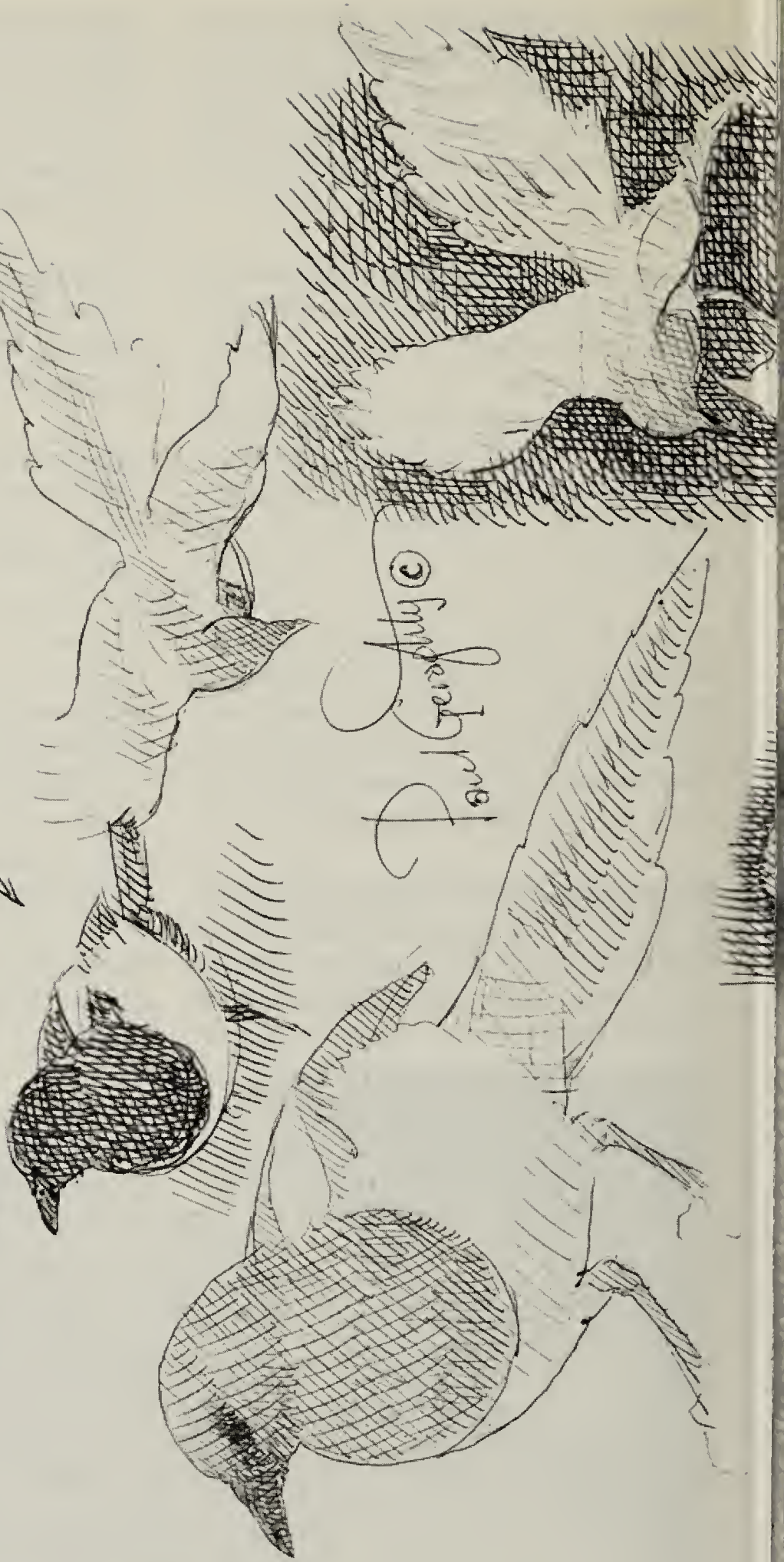


Figure 1. Spear Mark at Patterson Lake, SK

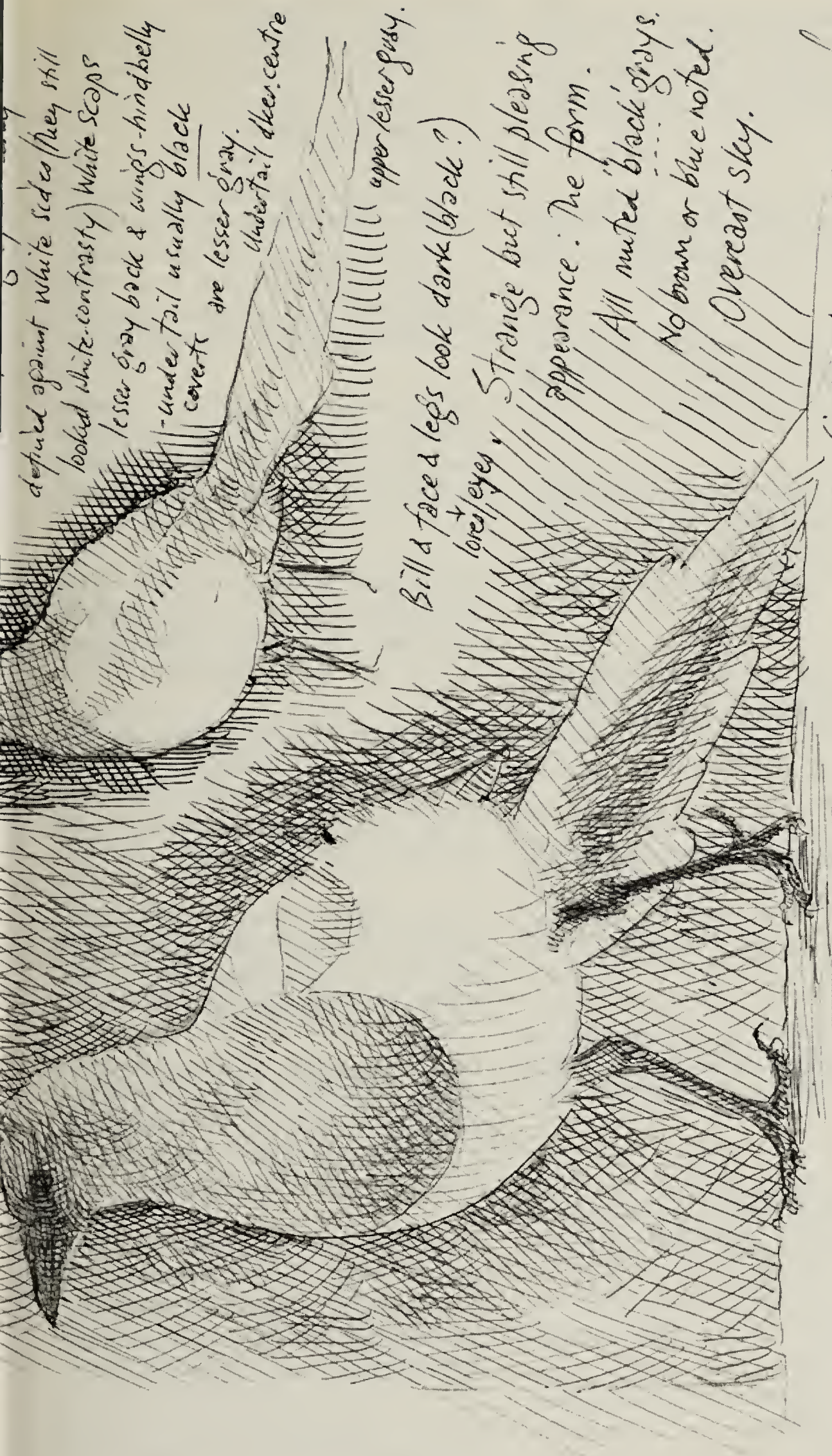
Ron Hooper

Sep 22/02 MJDam p.m.

2 Ghost Gray Magpie! - 4 others, normal!



Paul Gerard ©



defined against white sides (they still
looked white-contrasty) White Scaps
lesser gray back & wings-hind belly
- under tail usually black
coverts
are lesser gray.

Under tail darker centre

upper lesser gray.

Bill & faced legs look dark (black?)
lores/eyes.

Strange but still pleasing
appearance: the form.

All muted 'black' grays.
No brown or blue noted.
Overcast sky.

a Gull-coloured Magpie.

Arctic Carpet *Xanthorhoe ramaria delectaria* Cassino & Swett - Patterson Lake (n.e. corner of Sask.). (23-25 mm) (June 25-27) Reported on Dry-ground Cranberry.

Brown-banded Carpet *Xanthorhoe algidata* (Möschler) - Wadena, Wildcat Hill Wilderness Area and Gordon Lake. (20-26 mm) (July 14-Oct. 6)

Chalky Carpet *Xanthorhoe pontiaria* Taylor - Reported for Sask. by Troubridge and Lafontaine.⁶

Red Carpet *Xanthorhoe decoloraria* (Esper) - N. Sask., s. to Duck Mountain Provincial Park. (20-24 mm) (June 14-August 15) Reported on stitchwort, groundsel, willowherb and geranium in Europe.

Twin-spot Carpet *Xanthorhoe ferrugata* (Clerck) - Throughout Sask. (20-22 mm) (May 11-August 7) Reported on dandelion, polygonum and stitchwort.

Toothed Brown Carpet *Xanthorhoe lacustrata* (Guenée) - Throughout Sask. (20-26 mm) (May 1-Sept. 16). Reported on birch, raspberry, hawthorn and willow.

Striped Carpet *Epirrhoe alternata* (Müller) - Throughout Sask. (20-25 mm) (June 18-August 17) Reported on bedstraw.

Orange-winged Carpet *Epirrhoe plebeculata* (Guenée) - S. Sask., n. to Fort Qu'Appelle and Saskatoon. (18-20 mm) (April 21-May 17).

Small Argent and Sable *Epirrhoe sperryi* Herbulot - S. Sask., n. to Chemong, Candle Lake and Peerless. (18-20 mm) (May 29-June 25) Reported on bedstraw.

The Intermediate *Euphyia intermediata* (Guenée) - Throughout Sask. (21-26 mm) (June 13-July 14) Reported on chickweed, elm, forget-me-not and mustard.

Wood-colored Carpet *Zenophleps lignicolorata* (Packard) - Central Sask., n. to Deschambault Lake and Meadow Lake Provincial Park; s. to Fort Qu'Appelle. (23-28 mm) (July 20-Sept. 17) Reported on White Spruce.

Alpine Carpet *Zenophleps alpinata* Cassino - Buffalo Pound Provincial Park and Cypress Hills Interprovincial Park (Centre Block and West Block). (25-28 mm) (August 9-Sept. 8).

The Gem *Orthonama obstipata* (Fabricius) - S. Sask., n. to Somme. (16-20 mm) (June 7-Sept. 20) Reported on dock, elm and polygonum.

Bent-lined Carpet *Costaconvexa centrostrigaria* (Wollaston) - Fort Qu'Appelle and Avonlea. (19-21 mm) (June 21-October) Reported on knotweed and smartweed.

Fragile White Carpet *Hydrelia albifera* (Walker) - S. Sask., n. to Chemong and Turtle Lake. (16-18 mm) (June 16-July 30) Reported on dogwood.

The Welsh Wave *Venusia cambrica* Curtis - Central Sask., n. to Geikie River; s. to Wildcat Hill Wilderness Area. (23-24 mm) (June 25-August 15) Reported on alder and birch.

White-striped Black *Trichodezia albovittata* (Guenée) - N. Sask., s. to Duck Mountain Provincial Park and Sonningdale. (20-22 mm) (June 14-July 16) Reported on fireweed.

Bruce's Spanworm *Operophtera bruceata* (Hulst) - S. Sask., n. to

Reindeer Lake area. (23-30 mm) (April 6; Sept.29-Oct.24). This species is plentiful in late fall but rare in spring.

The Beggar *Eubaphe mendica* (Walker) - S. Sask., n. to Somme and Loon Lake. (26-27 mm) (June 15-July 22) Reported on maples and violets.

Many-lined Pug *Horisme intestinata* (Guenée) - S. Sask., n. to Narrow Hills Provincial Park. (21-26 mm) (June 15-July 18).

Two-tone Pug *Horisme incana* Swett - S. Sask., n. to Fort Qu'Appelle and Cramersburg (n. of Lancer). (25-27 mm) (June 4-August 12).

Ornate Pug *Eupithecia ornata* (Hulst) - Cypress Hills Interprovincial Park (Centre Block). (17-19 mm) (June 27) Reported on Lodgepole Pine.

Palpata Pug *Eupithecia palpata* Packard - Central Sask., n. to the Creighton and La Ronge areas; s. to Hudson Bay area, Gronlid area and Waskesiu. Reported on pine, fir and spruce.

Columbia Pug *Eupithecia columbiata* (Dyar) - Reported for Sask. by Troubridge and Lafontaine.⁶ Reported on willow and chokecherry.

Beautiful Pug *Eupithecia stellata* (Hulst) - Central Sask., n. to Bjorkdale; s. to Fort Esperance and Fort Qu'Appelle. (20-22 mm) (June 11-Sept.5).

Subfuscate Pug *Eupithecia subfuscata* (Haworth) - Central Sask., n. to Wildcat Hill Wilderness Area and Meadow Lake Provincial Park; s. to Fort Qu'Appelle and Saskatoon. (19 mm) (July 7) Reported on willow, alder, poplar and birch.

Western Pug *Eupithecia lachrymosa* (Hulst) (= *Eupithecia georgii* McDunnough) - S.W. Sask., e. to Roche Percee and Fort Qu'Appelle; n. to Saskatoon. (17-19 mm) (May 29-July 21) Reported on birch, willow and alder.

Colored Pug *Eupithecia pygmaeata obumbrata* Taylor - Buffalo Narrows. (18 mm) (June 26).

Regina Pug *Eupithecia regina* Taylor - S. Sask., n. to Fort Qu'Appelle and Frenchman Butte. Regina is the type locality. (18 mm) (May 31).

Insignificant Pug *Eupithecia misturata* (Hulst) - Prince Albert, Smoothstone Lake and Green Lake areas. Reported on tamarack, chokecherry, spruce, willow and alder.

Cone-feeding Pug *Eupithecia mutata* Pearsall - Reported for Fort Qu'Appelle area. Reported in cones of spruce and fir.

Northern Pug *Eupithecia borealis* (Hulst) - Oxbow and Fort Qu'Appelle. (12-16 mm) (August 3-7).

Flower-feeding Pug *Eupithecia anticaria* Walker - S. Sask., n. to Sturgeon Landing and Harlan area (n.e. of Lloydminster). (14-16 mm) (June 6-July 8) Larvae reported on flowers of aster, Gaillardia and sunflower.

Chocolate Pug *Eupithecia ravocostaliata* Packard - Central Sask., n. to Cumberland House and Meadow Lake; s. to Oxbow area, Fort Qu'Appelle and Buffalo Pound Provincial Park. (22-25 mm) (May 14-July 8) Reported on willow, chokecherry, birch and aspen.

Tamarack Pug *Eupithecia lariciata* (Freyer) - Reported for central Sask., n. to Narrow Hills Provincial Park area and Meadow Lake Provincial Park area; s. to Duck Mountain Provincial Park area, and Harlan area (n.e. Lloydminster).

Kaslo Pug *Eupithecia casloata* (Dyar) - Throughout Sask. (16-18 mm) (June 11-July 18) Reported on spruce.

March Pug *Eupithecia annulata* (Hulst) - Central Sask., n. to Narrow Hills Provincial Park area and Dore Lake area; s. to Duck Mountain Park area, Archerwill area, Macklin area; also in Cypress Hills area. Reported on spruce, fir, pine, tamarack.

Three-spotted Pug *Eupithecia tripunctaria* Herrich-Schäffer - Wood Mountain Regional Park. (19-22 mm) (June 16) Reported on flowers and seeds of bush cranberry, cow parsnip and water hemlock.

Sheppard's Pug *Eupithecia sheppardata* McDunnough - Shoal Lake. (18 mm) (July 9) Reported on alder.

Alberta Pug *Eupithecia satyrata dodata* Taylor - Wildcat Hill Wilderness Area, Big River and Frenchman Butte area. (21 mm) (July 7) Reported on flowers and fruits of willowherb, sarsaparilla, meadow rue, raspberry and shrubby cinquefoil.

Composite Pug *Eupithecia absinthiata* (Clerck) - Fort Qu'Appelle, Earl Grey and Chaplin area. (22 mm) (August 26) On composite flowers such as yarrow, sunflower, aster, groundsel and sage.

Obscure Pug *Eupithecia nimbicolor* (Hulst) - Big River, Harlan area (n.e. of

Lloydminster) and Maple Creek area. Reported on flowers of yarrow and willowherb, and leaves of willow, rose, Shrubby Cinquefoil and currant.

White Pug *Eupithecia cretacea* (Packard) - Kamsack, Wadena, Moose Jaw area, Prince Albert area and Harlan area (n.e. of Lloydminster). (21-24 mm) (July 4-14)

Behren's Pug *Eupithecia behrensata* Packard - E. of Rosefield, Grasslands National Park (West Block) (Specimen in CNC).

Currant Pug *Eupithecia assimilata* Doubleday - Fort Esperance, Fort Qu'Appelle, Sturgeon Landing and Briercrest area. (16-19 mm) (June 22-29) Reported on currant.

White-lined Pug *Eupithecia russeliata* Swett - Central Sask., n. to Wildcat Hill Wilderness Area and Clearwater River Provincial Park; s. to Preeceville area and Meadow Lake Provincial Park. (16-19 mm) (June 14-July 7) Reported on laurel.

Prairie Pug *Eupithecia ammonata* McDunnough - Trossachs, Indian Head and Frenchman Butte.

Baneberry Pug *Eupithecia cimicifugata* Pearsall - Tantallon. (17 mm) (July 14) Reported on dogbane.

Smoky Pug *Eupithecia perfusca* (Hulst) - Fort Qu'Appelle, Saskatoon area and Harlan area. (18 mm) (Sept.2) Reported on willow, alder and birch.

Many-lined Pug *Eupithecia multistrigata* (Hulst) - Sask. Landing Provincial Park, Buffalo Narrows area and Milliken Lake. (19-21 mm) (August 10) Reported on alder.

Mountain Pug *Eupithecia gelidata*
Möschler - Fort Qu'Appelle and Cypress
Hills Interprovincial Park (Centre Block).
(17-19 mm) (June 22-27) Reported on
Labrador Tea, birch, alder and willow.

Bog Carpet *Carsia sororiata* (Hübner)
- Central Sask., n. to Collins Creek; s.
to Weekes. (22-24 mm) (August 11-19).

Black-angled Wave *Cladara limitaria*
(Walker) - Central Sask., n. to
Umperville River; s. to Hudson Bay area.
(24-26 mm) (May 15-June 11) Reported
on fir, spruce and tamarack.

Scribbler *Cladara atroliturata* (Walker)
- Moose Mountain Provincial Park and
Bainbridge Campsite (n. of Hudson
Bay). (25-29 mm) (April 28-May 17)
Reported on alder, birch and willow.

Powdered Bigwing *Lobophora*
nivigerata Walker - Throughout Sask.
(21-25 mm) (May 14-August 20)
Reported on aspen and willow.

Three-patched Bigwing *Heterophleps*
refusaria (Walker) - Reported for Sask.
by Troubridge and Lafontaine.⁶

EXPECTED SPECIES

Bowman's Pug *Eupithecia bowmani*
Cassino & Swett - Found on Manitoulin
Island, Ontario and in central-west
Alberta.

Lafontaine's Pug *Eupithecia*
lafontaineata Bolte - Taken in western
Canada, east to the southeastern
corner of Alberta.

White-capped Pug *Eupithecia*
albicapitata Packard - Found across
Canada, on spruce cones.

Fletcher's Pug *Eupithecia fletcherata*
Taylor - Known from eastern Canada,
west to western Manitoba. Reported for
Sask. but not confirmed by Bolte.¹

Interrupted Pug *Eupithecia*
interruptofasciata Packard - Across
central Canada. The larvae feed on low
juniper.

Juniper Pug *Eupithecia niphadophilata*
(Dyar) - Known from western Canada,
east to the Cypress Hills area of Alberta.
The larvae feed on juniper.

Acknowledgments

I thank Klaus Bolte of Ottawa for
checking the identification of most of
our geometrid specimens. I also thank
Greg Pohl of Edmonton for checking
this manuscript and giving helpful
suggestions.

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