

BUTTERFLIES FROM THE SOUTHEASTERN MACKENZIE DISTRICT, N.W.T.

by WAYNE C. HARRIS*



Upland Lichen woodland with Black Spruce, White Spruce, scattered Paper Birch and Jack Pine.

The following notes were collected while in the southeastern part of the District of Mackenzie from June 3 to August 16, 1974. During this time four areas were visited: Porter Lake (108° 0', 61° 41') from June 5 to July 3, Snowdrift (110° 48', 62° 24') from July 4 to July 20, Forestry Lake (105° 30', 60° 56') from July 24 to August 10 and Mt. Smith (111° 52', 60° 00') from June 3 to 5, July 3 to 5, July 20 to 24 and August 15 and 16.

Snowdrift, Porter Lake and Forestry Lake are located on the Precambrian Shield in the Northwestern Transition Boreal Forest Region.² This is the forest edge bordering the tundra in which areas of bog, muskeg and barren rock are intermixed with open stands of Black Spruce (*Picea mariana*) with lesser amounts of Jack Pine (*Pinus banksiana*), Tamarack (*Larix laricina*), White Spruce (*Picea glauca*) and Paper Birch (*Betula papyrifera*). Ground cover is characteristically light coloured lichens, of which *Cladonias*,

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Study area and collection sites.





Canadian Tiger Swallowtail (x 1.0)

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Pteridiums and *Stereocaulons* are the dominants.²

Ft. Smith, located just off the southern edge of the Shield, is in the Upper Mackenzie Forest Region.² A closed canopy of White Spruce, Trembling Aspen (*Populus tremuloides*) and Black Pine occurs on the uplands with Black Spruce being the dominant in lower areas.

Butterflies were uncommon in this region. Almost all of the species noted were found in the month of June and observations were almost non-existent in July and August. Butterflies may be uncommon here because of a lack of suitable plants to feed on.

Temperatures were about normal for the summer, with the average high 55-70°F. Precipitation was above normal for the summer.

I would like to thank E. Johnson and J. Lamont for their assistance in preparing this note and R. Hooper for his assistance in identifying the specimens.

Annotated List

A total of 13 species was recorded during the summer; specimens were not collected of all species. However, an individual was caught, identified and released for all species reported here. The nomenclature follows *Butterflies of Saskatchewan*.¹ This was also used for identification of all the species found. Species for which a specimen was collected are marked with an asterisk (*).

***PERSIUS DUSKY WING** (*Erynnis persius fredericki* Freeman). On June 5, two individuals thought to be this species were seen at Ft. Smith. On July 11 a single specimen was collected at Snowdrift. Habitat at Fort Smith was a grassy hill along the Slave River with Trembling Aspen and White Spruce. At Snowdrift it was seen on a moist north-facing slope vegetated with White Spruce and a ground cover of Feather Moss (*Pleurozium schreberi*).

CANADIAN TIGER SWALLOWTAIL
(*Papilio glaucus canadensis* Rothschild)



Purple Lesser Fritillary (x 1.85)

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and Jordan). A single individual at Ft. Smith on June 5 and two along a sandy beach at Porter Lake on June 19 were the only sightings.

PALAENO SULPHUR (*Colias palaeno chippewa* Edwards). This species was observed once at Porter Lake on June 27. The habitat was an area which had been burned in 1972 along a bedrock ridge at least 500 meters from the nearest bog or meadow.

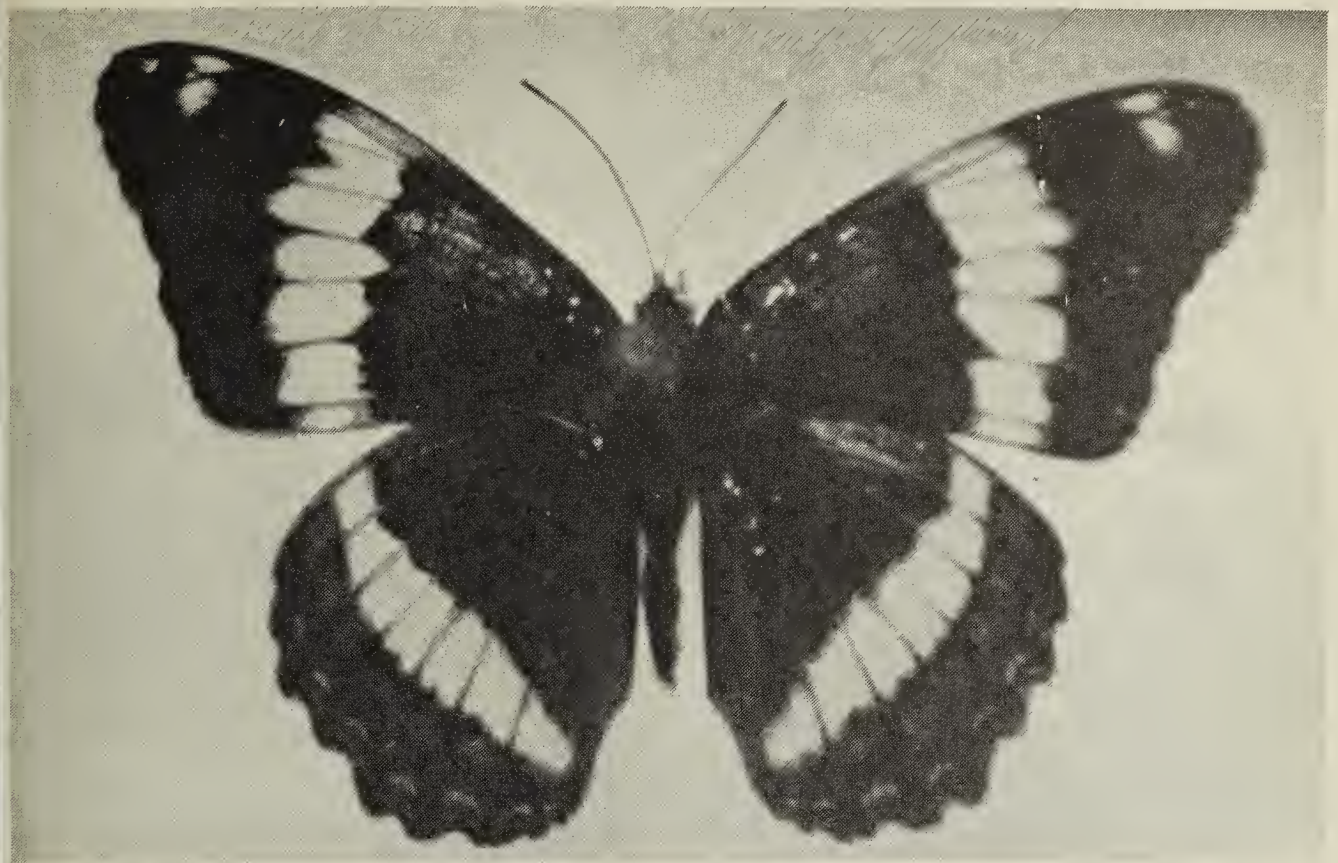
* **SILVERY BLUE** (*Glaucopsyche lygdamus couperi* Grote). A group of five was seen at Ft. Smith on June 5. A single specimen was collected. The only other record was of two seen at Porter Lake on June 11. In both locations this species was found in small open areas surrounded by Black Spruce and White Spruce with a ground cover of lichens and with no flowers in the immediate vicinity.

* **SPRING AZURE** (*Celastrina argiolus lucia* Kirby). This species was recorded intermittently at Porter Lake from June 11 to June 20 with a maximum of

four seen on one day. Single specimens were collected at Porter Lake on June 11 and June 20. The habitat was small clearings along an esker vegetated with Black and White Spruce. Prickly Saxifrage (*Saxifraga tricuspidata*) was the common flower.

WHITE ADMIRAL (*Limenitis arthemis rubrofasciata* Barnes and McDunnough). The only record was a single individual observed at Forestry Lake on August 2. Habitat was a sandy esker vegetated with mature White Spruce.

RED ADMIRAL (*Vanessa atalanta* Linnaeus). On June 27 one visited the buildings around our camp at Porter Lake. This individual was observed throughout most of the day as it flew around the edges of a small bog vegetated with *Sphagnum* and a flowering Labrador Tea (*Ledum decumbens*). The only plant species which it was observed landing on was Labrador Tea. The known food plant, Stinging Nettle (*Urtica gracilis*)¹, is not found in the Porter Lake area.



White Admiral (x 1.6)

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MILBERT'S TORTOISE SHELL (*Nymphalis milberti* Godart). A single specimen was collected at Fort Smith on June 5 in a small grassy clearing.

MOURNING CLOAK (*Nymphalis antiopa* Linnaeus). Single individuals were seen at Porter Lake on June 14 and June 19. The habitat for both was a fast flowing small stream bordered by Black Spruce. The only other observation was of a single individual seen at Forestry Lake on July 31 along a sandy esker.

GREEN COMMA (*Polygonia faunus* rusticus Edwards). This species was seen only at Porter Lake. On June 21 several were observed along a small spring flowing through the boulders under a mature White Spruce canopy.

FRIEJA FRITILLARY (*Boloria freija* Lunberg). This was by far the most common butterfly species found in the area. Scores were seen at Porter Lake on June 12 and this species remained common for the remainder of June. Three specimens were collected on

June 11 and one on June 19. Habitat in all cases was dry uplands along sandy eskers or bedrock outcroppings.

***PURPLE LESSER FRITILLARY** (*Boloria titania grandis* Barnes and McDunnough). A single specimen was collected at Porter Lake on August 13 on an esker vegetated with open White Spruce and a lichen ground cover.

***MANCINUS ALPINE** (*Erebia disa mancinus* Doubleday). Small numbers were seen at Porter Lake in Black Spruce bogs. On June 11 a single specimen was collected and the next day three more were seen at the same location. At a different location on the lake on June 19 one was found dead and several others seen.

¹HOOPER, R. R. 1973. *Butterflies of Saskatchewan*. Sask. Dept. of Natural Resources, Regina 216 pp.

²ROWE, J. S. 1972. *Forest Regions of Canada*. Dept. of the Environment, Canadian Forestry Service, Publication No. 1300. 172 pp.

