

AN INTRODUCTION TO SASKATCHEWAN'S SPHINX MOTHS

by RONALD R. HOOPER*

The family SPHINGIDAE or Sphinx Moths has 115 species in North America (north of Mexico). Twenty-two species have so far been taken in Saskatchewan, but at least another four species may yet be found in the province.

The sphinx moths are so named because of the custom of the caterpillars to sometimes raise the head and front segments in a threatening posture. They are, however, quite harmless. The caterpillars are usually also somewhat protected by having a sharp thorn-like spine or horn on the last segment. They usually feed on trees and shrubs. The Tomato Hornworm is one of the exceptions but, fortunately, it is rare in the province.

The sphinx pupa is unusual for moths as it is not enclosed in a silken cocoon. To make up for this, the caterpillar often burrows into loose earth for pupation. Some species have the proboscis enclosed in a separate part of the pupa, giving it the appearance of having a handle.

Adult sphinx moths are sometimes called "hawkmoths". This is not because they are predacious, but because of the unusually long fore wings in comparison with the short hind wings. The body of a sphinx moth is stout and relatively long. The antennae are finely feathered with short barbs.

All adult sphinx moths are avid flower feeders. Some species are called

hummingbird moths because of their habit of hovering over flowers while feeding. The Hummingbird Clearwing and the Snowberry Clearwing fly in bright sunshine with the butterflies. The Galium Sphinx, Striped Morning Sphinx and Clemen's Hawkmoth can be found at flowers in the daytime or at dusk. Most of our other species of sphinx moths fly in the evening or at night and come readily to lights. They are usually found from late May until early July.

The following is a preliminary list of Saskatchewan sphinx moths and their distribution within the province:

Tomato Hornworm — *Manduca quinquemaculata* (Haworth). Southern Sask.; rare.

Elm Sphinx — *Ceratonia amyntora* (Geyer). Central Sask.

Waved Sphinx — *Ceratonia undulosa* (Walker). South and Central Sask.

(Hermit Sphinx — *Sphinx eremitus* (Hubner). Expected in Eastern Sask.)

Great Ash Sphinx — *Sphinx chersis* (Hubner). Southern part.

Vashti Sphinx — *Sphinx vashti* (Strecker). Southern Sask.

Laurel Sphinx — *Sphinx kalmiae* (Smith). Southeastern Sask.

Gordius Sphinx — *Sphinx gordius* (Cramer). Central and Northern Sask.; tamarack woods.

Clemen's Hawkmoth — *Sphinx luscitiosa* (Clemens). Central Sask.

Wild-cherry Sphinx — *Sphinx drupiferarum* (Smith). Southern Sask.

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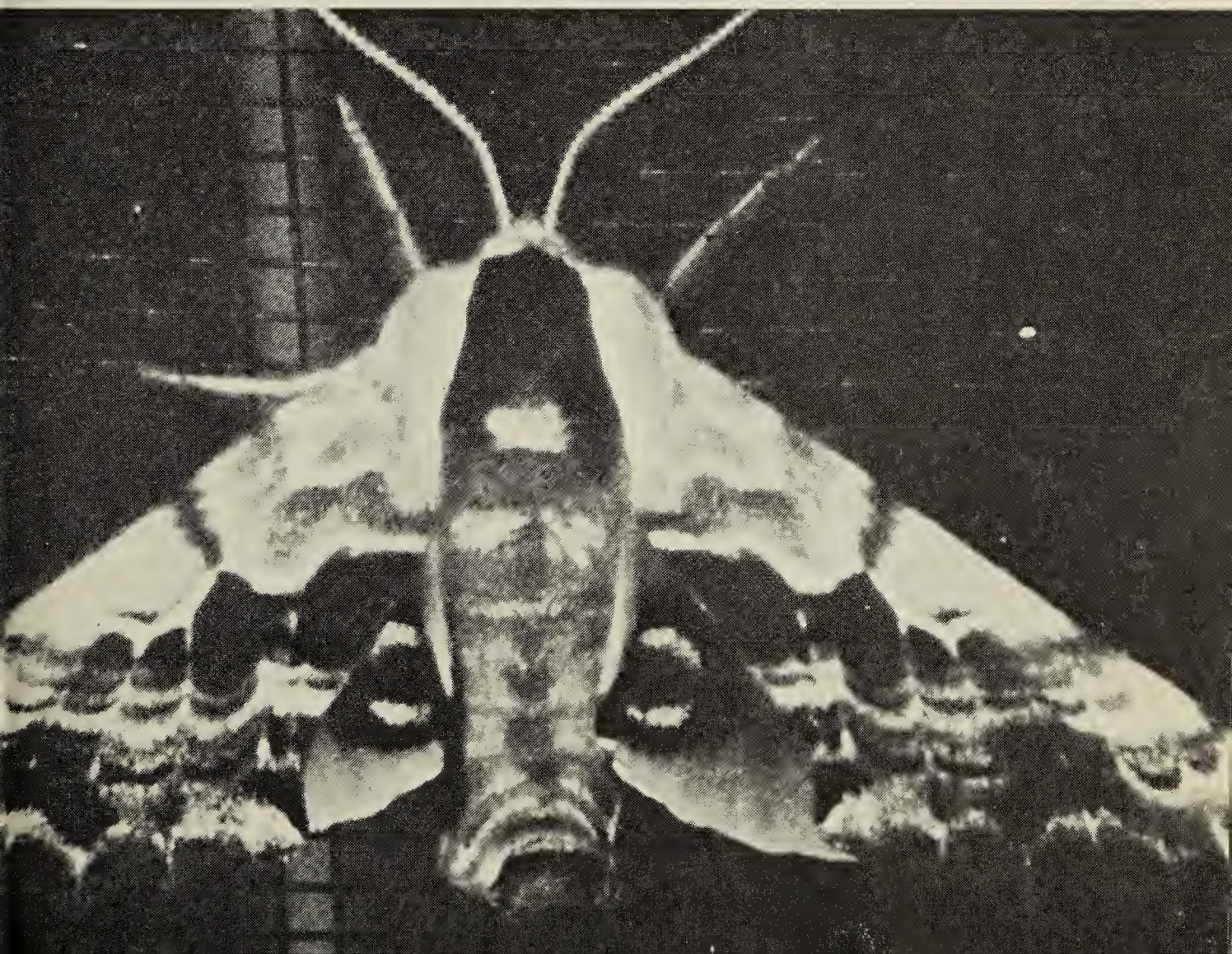


Tomato Hornworm

Richard Fyfe

Merisy's Sphinx

R. E. Ives





Small-eyed Sphinx

Fred Lahrman

Big Poplar Sphinx

Fred Lahrman





Hummingbird Clearwing on sweet rocket

Donald Hooper

Snowberry Clearwing

Fred Lahrman





Striped Morning Sphinx

Fred Lahrman

Bombyx Sphinx — *Lapara bombycoides*
(Walker) Central Sask.; pine
woods.

Twin-spot Sphinx — *Smerinthus*
jamaicensis (Drury). Southern half
of province.

Cerisy's Sphinx — *Smerinthus cerisyi*
(Kirby). Southern half.

Blinded Sphinx — *Paonias excaecatus*
(Smith). Southern half.

Small-eyed Sphinx — *Paonias myops* (Smith). Southern third of province.

Walnut Sphinx — *Cressonia juglandis* (Smith). Expected in Eastern Sask.)

Big Poplar Sphinx — *Pachysphinx modesta* (Harris). Southern and Central Sask.

Hummingbird Clearwing — *Hemaris thysbe* (Fabricius). Throughout province.

Snowberry Clearwing — *Hemaris diffinis* (Boisduval). Southern half.

Gaudy Sphinx — *Eumorphia labruscae* (Linnaeus). Straggler to Southern Sask.

Nessus Sphinx — *Amphion nessus* (Cramer). Expected in Southern Sask.)

Strecker's Day Sphinx — *Proserpinus juanita* (Strecker). Expected in Southwestern Sask.)

Yellow-banded Day Sphinx — *Proserpinus flavofasciata* (Walker). Central Sask., rare.

Azalea Sphinx — *Darapsa pholus* (Cramer). Eastern Sask.

Galium Sphinx — *Hyles gallii* (Rottenburg). Throughout province.

Striped Morning Sphinx — *Hyles lineata* (Fabricius). Southern part.

Editor's Note: All 26 species are illustrated in colour in the 1968 Dover reprint of W. J. Holland's *The Moth Book*, originally published in 1903. Twenty-one species appear in colour in *Butterflies and Moths* by R. T. Mitchell and H. S. Zim, a Golden Nature Guide (1964) but some of the common names are different: Tomato Hornworm = Five-spotted Hawkmoth; Gordius Sphinx = Apple Sphinx; Blinded Sphinx = Blind-eyed Sphinx; Snowberry Clearwing = Bumblebee Moth and Striped Morning Sphinx = White-lined Sphinx.

A KEY TO THE SPHINX MOTHS OF SASKATCHEWAN

Lepidoptera without clubbed antennae MOTHS
Lepidoptera with clubbed antennae BUTTERFLIES

MOTHS

Fore wing usually less than half as long as hind wing OTHER MOTHS

Fore wing usually more than half as long again as hind wing SPHINX MOTHS

SPHINX MOTHS

Wings partly transparent:

Upper side of abdomen black YELLOW-BANDED DAY SPHINX

Upper side of abdomen buff basally; dark maroon median band; last two segments buff, divided by maroon HUMMINGBIRD CLEARWING

Upper side of abdomen black and yellow, with the last two segments yellow SNOWBERRY CLEARWING

Wings not transparent:

Round eyespot present on hind wing:

"Pupil" divided into two parts TWIN-SPOT SPHINX

- "Pupil" in center of hind wing CERISEY'S SPHINX
 "Pupil" not in center; no other markings:
 Outer edges of wings very wavy BLINDED SPHINX
 Outer edges of wings angled
 but not wavy SMALL-EYED SPHINX
Round eyespot not present on hind wing:
 Abdomen with faint dark line down
 center of the upper side BOMBYX SPHINX
 Abdomen with a row of large yellow
 spots along each side TOMATO HORNWORM
 Abdomen banded with two bright
 yellow bands NESSUS SPHINX
 Abdomen banded with black and white bands:
 Median buff stripe of fore wing
 crossed by white lines STRIPED MORNING SPHINX
 Median buff strip of fore wing
 not crossed by white lines GALIUM SPHINX
 Abdomen with black bands along sides and a black line
 down the center of the upper side:
 Hind wing black with two narrow
 pale bands HERMIT SPHINX
 Hind wing grayish white with two
 black bands VASHTI SPHINX
 Hind wing buff with black margin CLEMEN'S HAWKMOTH
 Hind wing brown with wavy lines and a black and white fringe:
 Fore wing medium brown with
 wavy lines WAVED SPHINX
 Fore wing two-toned, light
 and dark brown ELM SPHINX
 Abdomen not noticeably banded or striped:
 Hind wing orange with black
 outer edges STRECKER'S DAY SPHINX
 Hind wing light brown with darker
 brown lines WALNUT SPHINX
 Hind wing rusty coloured AZALEA SPHINX
 Hind wing pink and blue BIG POPLAR SPHINX
 Hind wing yellow and blue GAUDY SPHINX
 Hind wing light brown or gray with two black bands:
 Fore wing brown LAUREL SPHINX
 Fore wing contrasting
 black and white WILD CHERRY SPHINX
 Fore wing dark gray:
 Outer black band of hind wing
 follows outer margin GORDIAN SPHINX
 Outer black band of hind wing
 inwards from outer margin GREAT ASH SPHINX