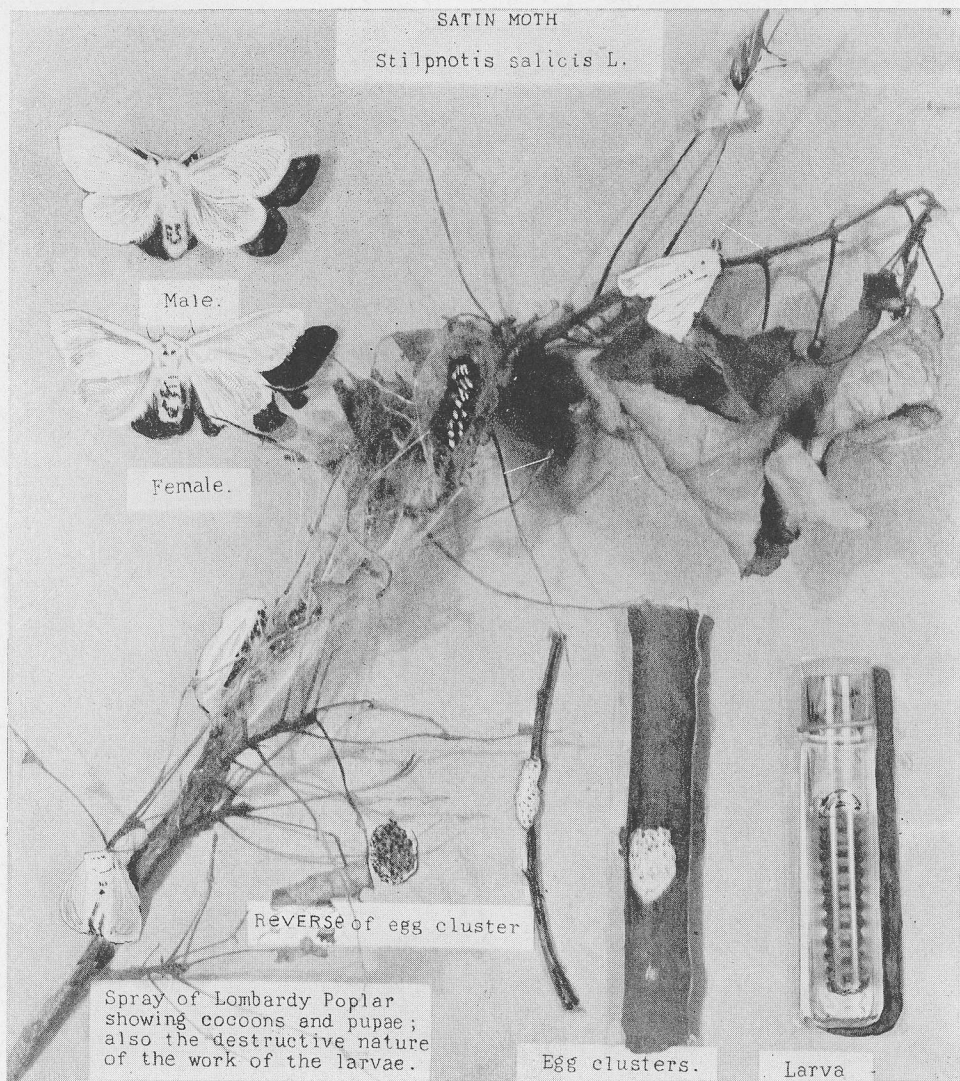


# The VICTORIA NATURALIST

Published by the Victoria Natural History Society, Victoria, B.C.

Vol. 5, No. 9

March, 1949



SATIN MOTH

*Stilpnotis salicis* L.

Male.

Female.

REVERSE of egg cluster

Spray of Lombardy Poplar showing cocoons and pupae; also the destructive nature of the work of the larvae.

Egg clusters.

Larva



A. Belted Kingfisher; scale,  $\frac{1}{4}$   
 Female (diving)                      Male



B. Nighthawk; scale,  $\frac{1}{8}$

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Report of the February Meeting

After the opening of the meeting by the President and the reading of the Minutes some discussion followed concerning the advisability of changing the day of the regular meeting. This resulted in Mr. Tildesley being appointed to a committee of one to look into the question and to report back. A request was read for assistance from the National Wildlife Federation by the sale of stamps. The proposed amendment concerning Honorary membership was passed unanimously following which a proposal for Honorary membership was read for voting on at the next meeting. A motion concerning lighting in the museum building was not seconded. The meeting authorized the purchase of a sack of grain for the feeding of coots which were starving at Elk Lake as a result of the prolonged cold weather. A King-of-the Salmon found at Willows Beach by Mr. E. B. Stoney of Lincoln Street, was displayed for inspection.

Mr. Norman F. Putnam, Field Crops Commission, Provincial Department of Agriculture, was then introduced by Mr. Hardy and spoke on the topic

Wildflowers out of Place

Under natural conditions the vast number of plants which exist in nature reach a "climax" condition of growth. Man upsets this "balanced" condition by creating artificial associations in agricultural pursuits and the plants so cultivated are used for food, clothing, shelter, heat or beauty. Those species which have no value or which possess harmful qualities are called "weeds". Weeds, therefore, are plants with objectionable qualities usually growing in places not wanted. Some common local weeds include -- gorse, wild radish, foxglove, English daisy,

Japanese honeysuckle, tansy and Canada thistle of which several had been introduced as ornamentals. Some plants such as mustard and lambs quarter which are usually considered to be weeds may occasionally be cultivated for food.

It is not desirable to destroy all weeds but it is necessary to eliminate some. The most satisfactory control is to prevent new weeds from becoming established. If weeds do appear it is advisable to destroy them early before they mature. Cultural methods are superior to chemicals in controlling weeds; when the latter recourse has to be adopted the best general weed-killer is Atlacide which not only destroys all plants but also sterilizes the soil temporarily. The new 2-4-D (Amine type) is best for controlling weeds in lawns. In general when using chemicals avoid using more than the recommended dose and avoid contact with other plants of the garden.

G.C.C.

Any hound a porcupine nudges

Can't be blamed for harboring grudges.

I know one hound that laughed all winter

At a porcupine that sat on a splinter.

From "Versus" by Ogden Nash,  
per T. Taylor.

THE WHITE SATIN MOTH, *Stilpnotia salicis* L.

by J. R. J. Llewellyn Jones

The popular name of this somewhat attractive moth (see outside cover) and which according to Richard South (The Moths of the British Isles, Series 1.) dates back to about the year 1773, aptly describes the shining white of the wings of a newly emerged specimen. Unfortunately however "set" specimens are inclined to become greasy and the insect then presents a far less attractive appearance.

The moth is an importation, probably from Europe, where it has a fairly wide range. It occurs in the British Isles somewhat locally and is rarely in sufficient numbers to become a nuisance. It is represented in Korea, China and Japan by the variety candida Staud.

Its range in British Columbia is at present southern Vancouver Island and the Lower Fraser Valley, and it is a fairly recent arrival.

At the outset the larvae were somewhat of a nuisance in some areas, notably Victoria and Duncan, where poplars were denuded of their leaves and in consequence presented a woebegone appearance. However of recent years far less destruction has been evident and, it may be hoped that in the future the insect may not need to be considered undesirable.

The larva, which is of attractive appearance, is hairy and of a blackish hue marked with reddish and whitish lines and streaks. The characteristic markings, by which it may best be recognized, are a series of cream coloured spots along the dorsal line. It feeds upon poplars, Populus spp., including the ornamental Lombardy, Carolina and Silver poplars, also upon Salix spp. both willows and sallows.

With regard to the term "Sallow", which is used extensively by British writers, and which the writer considers a very useful term, it may be stated, for

those unfamiliar with its use, that it denotes a very definite group of the genus Salix of which we may consider Salix scouleriana (Hook) Barr. as representative. It is the group which produces the well known "Pussy Willows" in the spring. It would not include the Black Willow, Salix lasiandra Benth., or the ornamental Babylonian Weeping Willow, and their allies.

The egg stage is not of long duration, the egg clusters soon hatching and the larvae hibernating when quite small and reappearing in spring to mature.

The pupa is contained in a loose cocoon spun either amidst leaves or in the crevices of bark and this stage lasts only a few weeks, the moths appearing in June and July. They were frequently attracted to light.

The moth is easily bred from the larva, which may be found during the spring months upon its food plant, and can usually be obtained upon aspen, poplar and sallows growing in Victoria, on the shore line from Dallas Road to the Uplands. However many of the larvae will be found to have been stung by "ichneumons", parasites which prey upon the larvae and thus form a natural means of control.

In this connection it would seem probable that the depredations of the larvae, noticed when it first arrived in this Province, were due in part at least to the fact that the local parasites did not recognize a suitable host and that only after experimenting they discovered that the larvae would prove suitable for their own development, thus causing the reduction in numbers noticed in recent years. It is to be hoped that this moth will not have to be classed in the future as "undesirable immigrant".

### THE BELTED KINGFISHER

This distinctive bird (Illustration A.) is not likely to be mistaken for anything else no matter how superficial be our knowledge of the avian fauna of Victoria, for there is hardly a piece of salt or fresh-water that is not at some time visited by this accomplished fisher of the bird world. Those who keep fish in garden pools have reason to be only too well acquainted with the adroitness with which it purloins a favourite pet.

Often the first indication of his presence is the penetrating rattle of his call note as he sweeps by with a flash of white and slaty-grey; or he may be observed perching immovably on some overhanging branch or projecting pole, his keen eyes scanning the water below for some luckless fish, newt or frog that will form a meal for himself or his family.

When thus silhouetted against the sky his powerful bill and large crested head are seen to advantage, almost too large in proportion for the tapering hind body and tiny feet that seem inadequate to support him.

Should a fish appear he plummets from his perch with the speed of an aerial bomb; striking the water with a resounding splash he soon appears with the object of his quest squirming in his beak.

The bill is not only an efficient pair of tweezers for seizing slippery prey, but is a useful pick wherewith to excavate a nesting tunnel in some earthy bank at the end of which his mate deposits her clutch of white eggs, safe from most marauders.

As the young grow, so does the pile of discarded bones that lie around them, (at one time) erroneously suggesting that such were deliberately used as nesting material.

The specific name, alcyon, is an old poetic name for the kingfisher, and is attributed to Aeolus, father

of Alcyon, who kept the weather calm in midwinter for 14 days when the birds were supposed to nest and rear their young, at sea, on a raft. Hence the term halcyon days, which is still used to denote fine weather during the winter season.

The Belted Kingfisher is widely distributed throughout British Columbia especially on the coast. Most go south during the winter season, returning in the spring to found a home.

George A. Hardy.

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#### THE NIGHTHAWK

When the Nighthawk (Illustration B) is seen or heard we know that summer has truly come to the land, for it arrives from its winter sojourning to the south in the month of June when all nature is at the zenith of its powers. It is among the last of the migrants to reach their nesting haunts in the vicinity of Victoria.

The oft repeated nasal note of this bird is sometimes the first indication of its presence, as it twists and turns erratically high in the air above us. Anon it closes its wings and drops towards the ground like a living meteor, only to check the mad descent at the last moment by suddenly spreading its wings and swooping upwards, giving forth at the same time a loud burring sound, caused by the vibration of its wing feathers against the pressure of the air. Then up it will mount again high in the air to repeat the performance. This eccentric behaviour is not noticeable during the mating period, when the male bird will dive at the head of an intruder in an effort to frighten him away.

The Nighthawk may be a hawk in the verbal sense

in that it hunts insects for food, and it resembles a hawk in the barring of the outstretched wings or even in the sudden drop as if pouncing on its prey, but there all resemblance ends, for actually, any bird more unlike a hawk is hardly imaginable. In place of the hooked beak of the hawk, the Nighthawk has a wide, bristle-bordered mouth that is a veritable fly-trap, with a grasping capacity, when wide open that is an unexpected surprise to those not "in the know".

The feet, too, are so weak and feeble as scarcely to support the weight of the bird when at rest. For this reason it lies along a bough rather than across it, as most other birds do which possess stronger legs and feet.

The subdued, but rich colouration of the feathers closely harmonizes with the greys and browns of the bark on the ground on which it may happen to be, a fact which affords efficient protection against sharp-eyed enemies.

When in flight, which may be during the day as well as the evening, the white bars, one on the underside of each wing are very conspicuous and serve to identify it at once.

The two eggs are laid on the bare ground without any attempt at a nest, a fact that makes them harder than ever to discover, for the mottling of the eggs blends well with their surroundings. In the cities, the flat-topped roofs are often used as nurseries, for gravel which is generally used as a binder on the roofs results in a very good simulation of a natural site and the roof-top provides freedom from most ground predators.

The female is a devoted mother and is loath to leave her babies. At such times she will allow of a close approach to which, if persisted in, she will respond by suddenly opening her mouth to its widest extent and then sharply closing it making a clicking

noise as it does so. This once caused the writer to jump back in alarm when he unsuspectingly almost touched a nesting bird, thinking it was a piece of bark. Sometimes, when closely approached, she will ruffle her wings and "hiss" at the intruder.

The chicks are thickly covered with grey down, that closely resembles a patch of lichen or withered herbage, forming a perfect camouflage. This is further enhanced by the immobility maintained by them when under observation and in obedience to the soft mew of the parent who hovers near by.

The young are able to crawl about soon after hatching, an accomplishment which the parent makes use of by encouraging a new resting place each day. This avoids any concentration of scent or debris, which might attract one or more of the many enemies of ground nesting birds.

George A. Hardy.

## JUNIOR PAGE

### The Cicada

Who has not heard the shrill drone of the cicada? In late spring and early summer his dry monotonous song drums on our ears, and in years of abundance well nigh deafens us.

The cicada is not related to the cricket, as may be supposed from his song, but is a member of that large order of insects, the Homoptera. Although practically all of us have heard his song, few ever see him, for it takes much patience, the cicada being a ventriloquist at will. Let us contrive to capture one and examine him. If we are successful, we will find a large black and orange insect, about 25 mm. in length, and with a wing expanse of about 55 mm. It is one of the most interesting of insects, partly on account of its shrill song, and partly for its long metamorphosis. We may see at a glance that it has excellent vision, having two large compound eyes, advantageously placed, and three ocelli, or simple eyes. The insect captured will, in all probability, be a male, for the females do not sing.

Let us now search for the source of this sound. Looking carefully, we soon discover two large semi-circular plates on the under surface of the abdomen, which slightly overlap one another. These, on being removed, disclose two large hollows, or "chapels". Their anterior and posterior limits are formed by two small, tightly-stretched membranes, called "mirrors". On either side of the chapels are two enclosed, oval-shaped membranes which are the actual producers of the sound. These are vibrated by muscles, and the sound is amplified in the chapels. In some species, the male has a long, hollow abdomen, which may be expanded or contracted, thus producing the effect of ventriloquism.

But what is the purpose of all this elaborate

equipment? Why does the cicada drone out his dreary song? The answer is very simple. It is the male's love call. But tests have been made, proving that the cicada is either deaf, or very hard of hearing! Actually the sound transmitted by the male sets up a vibration in the body of the female, thus attracting her, and also serving to keep them close together.

Soon the male dies, his purpose in life being fulfilled and the work is taken on by the female. She hunts for a short time until she finds a twig to her liking. This must be smooth, slender, and upright, having a thin bark and plenty of pith. Then begins the tedious process of egg-laying. First, she punctures a series of holes in the wood with her rostrum. As the insect likes to keep her back to the sun, and is constantly rising, these lacerations appear in the form of a spiral. The punctures, at the ends of which are small chambers, are directed in a downward direction. About thirty or forty of these chambers are made, each containing from six to fifteen eggs. This makes a total of from three hundred to four hundred eggs laid by each female.

The cicada has several enemies. The hungry sparrow is ever ready to gobble it up. In some areas, however, its worst enemy is the green locust, which whenever it encounters a cicada, immediately attacks it, and the cicada, being defenceless, falls an easy prey to it. But it is neither of these enemies that induces the cicada to lay so many eggs. The principal reason for this is a small parasitic fly of the family Chalcididae. As the cicada is laying her eggs, this small fly is undoing all her work by laying her own eggs among those of the cicada. These latter eggs will hatch first and the larvae consume the former. Thus she follows the cicada, and when the latter is finished, and wary with egg-laying, most of the eggs so meticulously placed are already doomed never to live.

In early October, those eggs which have not been

parasitized, hatch. These minute grubs are about one tenth of an inch in length. On hatching they clear the tunnel and wriggle to its mouth. Here in the warmth of the sun their skin splits and falls away. The nymph then drops to the earth and commences to "dig in". From two to five years it will remain underground spending its time in a tunnel about fifteen inches deep, the sides of which it plasters with a mixture of loose excavated soil and a liquid secreted by its body. While it is underground, it lives on the juices of plant roots, which it sucks up with its proboscis. All the while it is gradually growing and developing. Wings appear under the skin and the large eyes begin to darken and become functional.

When it has matured sufficiently, the nymph climbs to the top of its tunnel, which has remained closed all this time, and digs itself out. On emerging, it wanders for some time in the neighbourhood of its burrow. Finally, finding a suitable bush or tree, it ascends. It grasps a twig firmly and for a moment it remains stationary. Then the covering of the thorax splits down the centre and the adult insect slowly emerges and commences to dry its wings. The cast-off skin remains firmly grasping the twig as if it were still alive. On emerging the adult's wings are heavy, moist and transparent, with pale green nervures. Its body is also green, but finally it turns a dark brown and when its wings have completely hardened and are dry, the insect flies away.

The cicada then commences a life of feeding, singing, mating, egg-laying, and near the end of the summer and beginning of autumn it dies.

Brian Ainscough,  
Junior Editor.

NOTICE OF MEETINGS

Tuesday BOTANY GROUP MEETING, Provincial Museum at  
 Mar.1st: 8 p.m. Mr. W. Tildesley.

Tuesday ANNUAL MEETING, Provincial Museum at 8 p.m.  
 Mar.8th: Business: Presentation of Annual Reports;  
 Election of officers. Speaker: Mr.E.G.Oldham,  
 Forester in Charge of Parks Division, B. C.  
 Forest Service. Topic: Development of Re-  
 sources of the Northwest Territories. Illus-  
 trated by motion pictures.

Tuesday GEOLOGY GROUP MEETING, Provincial Museum at  
 Mar.15th: 8 p.m. Speaker: Mr.A.H. Marrion on  
 "The Work of Glaciers".

Tuesday ORNITHOLOGY GROUP MEETING at the home of  
 Mar.22nd: Mrs. J.R. Parris, 592 Island Rd., at 8 p.m.  
 Speaker: Mr. Charles Guiguet.

Monday AUDUBON SCREEN TOUR, Prince Robert House  
 Mar.28th: Auditorium at 8 p.m. Speaker: Rev.George  
 M. Link, "Alluring Alaska".

JUNIOR GROUP

will continue to meet for the Saturday  
 morning movies either at 9:30 or 11 a.m.

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*Jo*