

INSECTS AND FROST

J.D. Ritchie

When it is fifty below the snow creaks underfoot; the frosty wind pierces the clothing, whitens one's nose and ears and nips the toes and fingers. The trees in the woods crack with a report like that of a rifle -- then in its little nest on the bare twig of a willow there hangs the tiny caterpillar of the Banded Purple. When men and animals freeze and die this hibernating insect larva, secure in its hibernaculum, is able to retain its spark of life and in the spring, after feeding and pupating, will emerge into what is probably our most beautiful butterfly. It flits here and there, dances in the sunshine and delights the eye of the naturalist.

Nothing in the whole realm of nature is more marvellous than the manner in which some of the minutest forms of animal life are able to resist extremely cold temperatures. Away up in the arctic regions where the mercury goes as low of 75 and even 80 degrees below zero the butterfly caterpillars of the genera *Erebia* *Oeneis* and many species *Brenthis* awaken, feed and develop when vegetation starts to grow again in the spring.

One entomological writer is doubtful that insect larvae can freeze in the winter, thaw in the spring and regain their vitality. He says, "This view has never been positively proven."

I wish that writer had been with me last winter when I was splitting wood. I am certain that he would have changed his mind. There in the centre of a poplar block was a little larva, a cerambycid grub concealed in its woody winter bed. I took it in my fingers and broke it in two. It snapped like a piece of sealing wax of the same size. Frozen? Certainly! Wouldn't this race of beetles become extinct if they did not rejuvenate? But they still continue to destroy untold numbers of our valuable forest trees.

Two years ago I came across a cossid moth caterpillar in the same way. It was solidly frozen. I tightly tied the split stick together again with twine, being careful not to injure the occupant and stored it in a shoe-box in the cold tool-house. When spring arrived I took it into the cabin and after it matured and hatched I had a perfect adult female specimen of the destructive tree pest, *Acoasus populi*. Ants in a state of suspended animation in their woody galleries were found in the same way. When squeezed between the thumb and fingers of my glove their stiffly frozen bodies became a blackish brown powder.

Oh yes! Mr. Entomologist. Insect larvae freeze and regain their vitality. At least some of them do. There is absolutely no doubt about that.

THE LARDER BEETLE AND THE ARMY CUTWORM MOTH A Ward

I submitted two species of insects, this summer, to the Dominion Laboratory at Indian Head, for identification. Miss Margaret Cumming, of that department, identified one as a larva of the Larder Beetle and the other as the Army Cutworm moth.

The Larder Beetle, a household pest often seen on stored ham and bacon in basements and other storage areas, is from one-quarter to three-eighths of an inch in length. The color is blackish, and the insect has a wide pale yellow head. The grubs, which were found in a bee-hive, are brown and hairy with two stout spines on the back near the end of the body.

The moths, which have been so numerous this summer, with the fore-wings dark in color and the hind wings a lighter shade, and with a wing expanse of about two inches, are those of the Army Cutworm. What this portends in the matter of next year's increase of these insects remains to be seen.

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FORESTRY

A. Ward

The article on forestry by C. Stuart Francis, in the first issue of this year's BLUE JAY is to be highly commended. Mr. Francis refers to the grasshopper infestation as something that could possibly be prevented from reaching the proportions that have been so evident this summer.

If forestry were undertaken more seriously and extended to the prairies, means would be provided for encouraging many insect-eating birds to stay where they are not at present.

The matter has been discussed and presented to the Department of Natural Resources, Regina. The presentation to the Department was the suggestion that eighty acres of land be set aside in every municipality for the planting of trees. It was suggested that the trees should be planted twenty feet between rows, so that they could be easily worked with a tractor.

Travelling west last November, after a very dry period, parts of the prairie district presented a most miserable sight. The grass, nibbled as bare as the road, had the appearance of a desert area. The proximity to the adjacent wooded Cypress Hills does not seem to influence the surrounding semi-arid district.

A forestry station in that area might be the means of inducing more moisture and attracting many species of birds which do not stay there at the present time.

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ANNUAL MEETING

Plan to attend this meeting, to be held in the Museum auditorium, Regina, Friday, October 27. See page 4.