

Hemisarcoptes coccisugus Lignieres

An Enemy of the Oyster Shell Scale

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Hemisarcoptes coccisugus belongs to the family Canestriniidae or Insect Mites. This is a small family of predaceous mites which feed principally upon insects and their eggs. Many of these mites live on beetles, but this particular species feeds on the eggs and young of scale insects, especially the common oyster shell scale. In California it feeds also upon the San Jose Scale and probably other scales are attacked.

Mites are of great interest not only because of their minuteness; their varied forms and adaptations for living under widely different conditions, but also because of their complex inter-relationships and their influence on the welfare of man by direct attacks and by infesting domesticated animals and plants.

There are a very large number of mites and the majority of them must be classed as injurious to man's welfare.

Among these may be mentioned the Red Spiders, which attack practically all kinds of citrus trees, almond, apple, pear, plum, prune, other fruit trees, as well as ornamental and native shrubs and plants; the chicken mite, a serious pest of poultry; the bulb mite, injurious to many plants and particularly to bulbs such as freesia, hyacinth and narcissus; the scab mites, which cause mange of animals, and the pear leaf blister mite, which attacks the leaves of apples and pears.

The beneficial mites are far less numerous, but mention may be made of the locust mite, which feeds upon the eggs of grasshoppers and which may be seen attached to the wings of adult grasshoppers. There are also a few other predaceous mites which feed on the eggs and young of some of our injurious insects.

Hemisarcoptes coccisugus occurs in Europe, Canada, and the Eastern States.

It did not occur in British Columbia until its introduction from Eastern Canada to the Vernon district in 1917 by Treherne. It was liberated on apple trees and wild bushes and soon became established.

It spreads very slowly but has now become common in parts of the Vernon district. It is principally of value in controlling the oyster shell scale upon the wild bushes such as swamp dogwood and thorn. It has reduced the infestation of scale on these bushes in the Vernon district very materially.

It is also of value on apple trees, but unfortunately is killed by the sprays applied in oyster shell scale control.

This mite is being introduced into other fruit growing districts of the province by the Dominion Entomological Laboratory at Vernon, and has already become established in the Salmon Arm area. Liberations are made mainly amongst the scales on swamp dogwood and thorn along creeks and in waste land, where the reduction of the scale will undoubtedly help to keep the orchards from being re-infested.

This is a small, active, pearly-white mite, a little larger than an oyster-shell scale egg. Where it has become well established several mites may be found beneath one scale, where they destroy the eggs or newly hatched young.

Very little is known about the life history of this mite, but we have found that it lays from 15—20 eggs.

It is probable that this mite spreads very slowly and cannot be relied upon to aid very much in orchards where regular scale control is practiced. Its place is along creeks and patches of bush adjacent to orchards where it can help to reduce the oyster shell scale on wild bushes upon which scale control is not practiced.

