

THE BEDBUGS OF BRITISH COLUMBIA

By G. J. Spencer

In the January number of the "Canadian Entomologist" for 1930 I published a short article on "The Status of the Barn Swallow Bug, *Oeciacus vicarius* Horvath" in connection with its attacks on human beings towards the end of the swallow nesting season or after the birds have migrated.

Since that date I have made several collections of bedbugs in this province and I think the list of possible species is now complete. Moreover, in the case of two of the species, the swallow bug and the bat bug, the collections include all the developmental stages from egg to adult with the exuviae; these stages I hope to describe in a forthcoming paper. For the present it will suffice to record a few notes about each species.

Species 1. *Cimex lectularius* Linn. The Occidental Human Bedbug.

A vast amount has been written about this ubiquitous insect which I refer to here as the Occidental human bedbug as opposed to *Cimex hemiptera*, the Oriental species. *Lectularius* seems to be sparsely but widely distributed over this province and crops up in camps, especially where transient labour is employed. It is carried from place to place, especially to hotels, in suit-cases or in bundles of bedding; I once discovered a couple in a parcel of otherwise clean clothes fresh from a Chinese laundry. The species occurs frequently in lumber camps where it is often exceedingly difficult to control on account of the jerry-built bunkhouses through whose walls any gas used in fumigation readily escapes without getting rid of all the bugs. Reports are to hand of old bunkhouses and shacks being deliberately burned by the owners as the simplest way of destroying the hordes of insects. I have seen the walls of a bunkhouse absolutely plastered with the specks of their droppings, and have painfully noted the myriads of insects issuing forth at night from every crevice in the walls and from the bunks themselves. A condition as serious as this is not tolerated nowadays; however, I have one record from an engineer where such a condition prevailed as recently as 1931, and another in spring 1933 from a boarding house similarly infested.

Species 2. *Cimex hemiptera* F. (*rotundatus* Sign.). The Oriental or Tropical Bedbug.

This species is usually longer, narrower and darker than *C. lectularius*. My samples are from India, and while I have not yet taken this insect in this province I think it more than likely that it may be readily found in Vancouver, where the Oriental population is con-

siderable and is constantly being reinforced by new arrivals from India, China and Nippon. I have questioned several Chinese and Nipponese but they are even more reticent than most people about these insects; one man assured me, however, that Nipponese houses in Vancouver are sometimes infested with bedbugs and that new arrivals bring them in amongst their personal effects. All his promises to secure specimens of this insect from the homes of his countrymen have so far come to naught.

Species 3. *Cimex pilosellus* Horvath.

This is the not uncommon bat bedbug of North America and seems to attack several species of bats. I have rarely found it on the animals themselves, but it may readily be taken from their roosting places in trees or in buildings. One of my records is from the loose bark of a cedar tree where bats were in the habit of sleeping. Another record shows a very well known summer hotel in the Dry Belt whose log construction afforded splendid hiding for bats. Up to the time of our visit in July, no less than 72 bats had been destroyed because they harboured the bugs which swarmed into the neighboring rooms through cracks in the plaster, especially in one of the bathrooms. Although human beings had not been actually bitten by the bugs, the guests seemed to resent their presence and the management was much concerned over the situation. The bat in question was ***Eptesicus fuscus fuscus*** Beauvois.

From the log roof of a root cellar near Lytton in the Dry Belt I obtained a large number of the bugs, which were occupying a deserted termite nest whose tunnels afforded them splendid protection. There were five of these same bats roosting immediately below the termite nest but no bugs were found on the animals themselves, although all stages of the insects occurred in the termite nest. This brood was taken in August.

To date, I have no record of anyone being actually bitten by this species of bedbug.

Very large specimens of this same insect, in fact the largest of all the bedbugs I have, were taken by that ardent mammalogist and ornithologist, Mr. Kenneth Racey of Vancouver, from specimens of the bats ***Lascionycteris noctivagans*** (Le Conte) the silver haired bat, and ***Eptesicus fuscus pallidus*** (Young) the pale brown bat, which were captured in July, 1931 in a talus slope on Anarchist Mt. near Keremeos. There were 10 specimens of these bugs, all females, 4 on ***pallidus*** and 6 on ***noctivagans***, attached by their beaks firmly implanted in the bats' skin with their bodies sticking up at right angles to the skin, practically concealed in the long dense fur behind the ears. The bats were found in two separate locations at Keremeos.

Species 4. *Oeciacus vicarius* Horvath.

This is the widely distributed bedbug of swallows' nests in North America, which I reported from the nests of eave swallows (***Petrochelidon lunifrons*** (Say) in 1930. 1. and which Dr. Herbert Osborn 2, 3 reported as early as 1892 and again in 1906 from the nests of barn swallows (***Hirundo erythrogastra*** Bodd.). I have since taken them from barn swallows' nests from widely separated points in the province. My records show that these insects breed abundantly in the substance of these nests but especially in eave swallows' nests, where all stages may be found in July; by the end of August, all the eggs have hatched. The bugs, in all instars, occur in nests from which the birds have flown in August and must remain there all winter, although I cannot say at present if all stages survive the winter. Even if some of them do survive the winter, it is likely that birds migrating from the south bring a fresh stock with them in spring (when we consider the case of the bat bugs I have just mentioned), firmly adhering to their hosts.

This species certainly bites human beings when it becomes abundant even when the swallows are still present, but especially when the birds have migrated. (Spencer 1.) At times these bugs are very numerous; in one of the famous roadhouses up the Cariboo highway they swarm over the ceilings of some of the rooms when the birds have left and form flat masses over a foot in diameter. Such a condition, however, prevails only where nests are extremely numerous, running up into several score. Generally within one week or ten days after the birds have left, the bugs scatter to hiding places in the roof and are not found again until the following season when the swallows return.

1. Spencer, G. J., The Status of the Barn Swallow Bug, ***Oeciacus vicarius*** Horvath. Can. Ent., Vol. LXII, No. 1, 1930.
2. Osborn, Herbert, Can. Ent., Vol XXIV, p. 262, 1892.
3. Osborn, Herbert, Bul. 5, N.S., U.S. Div. Ent., 1896, p 161c,

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