

Another Household Pest Arrives in Vancouver

The Fire Brat **Thermobia domestica** Packard

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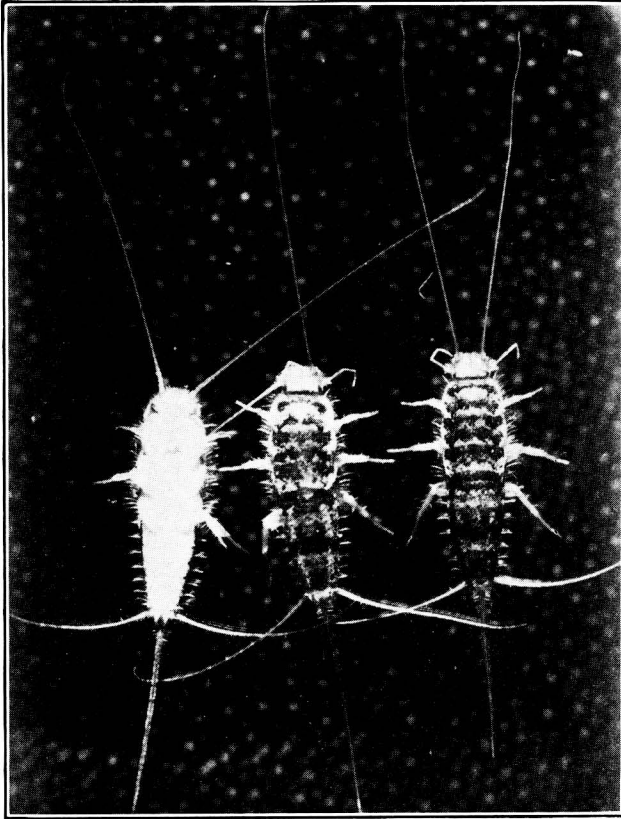
IN THE autumn of 1928 specimens were sent to the University from a local hospital of an insect which has not been recorded from this city up to the present. The insect was **Thermobia domestica** Pack. the Fire brat. It is a near-relative of the Silver fish **Lepisma domestica** Linn., which is practically world-wide in its distribution, having been carried around by commerce.

The hospital authorities stated that the insects had never been seen there before and that they were colonized in one of the laundrys in a basement.

The Fire brat is an insect that flourishes in hot, damp localities; both heat and moisture are essential to its well-being, so that laundrys, parts of bakeshops near the ovens, areas of basements near the furnaces, and parts of house kitchens near hot-water pipes and sinks are pre-eminently suited to its development. I have kept the insect in close captivity at the University since 1926 and find that it favours the same type of locations as the cockroach **Blatella germanica**, but can tolerate a far higher temperature, being most active at from 90° F. to 105° F., whereas the roach is somewhat intolerant of a maximum of 90° F.

In a current number of the Canadian Entomologist I have outlined the spread of this insect across Canada, as it has been brought to my attention chronologically. The history, in brief, is as follows: Toronto, in winter 1915-16, in the elevator shafts and basement of a hospital; Guelph, Ont., winter 1923-24, in bakehouses between the bricks of the ovens; Winnipeg, winter 1924, in a building of the University; Saskatoon, winter 1926-27, in laboratories; Vancouver, 1928, in a hospital.

While this series of dates as to its spread is probably far from being exact, it indicates that the insect has been in Toronto for over fifteen years and has gradually spread westwards.



Adult Fire Brats in typical colour patterns. X-2½.

The specimen on the left is upside-down to expose the silvery-white ventral surface; the central one is a female, showing the short ovipositor. The three "tails" are the lateral cerci and the median pseudo-cercus. Original.

Escherich¹ indicates that the Fire brat is probably of Mediterranean region, which would account for its favouring situations of considerable warmth.

With regard to its food preferences, it may be stated that they closely approximate those of the german roach, namely, all kinds of farinaceous foods, starch and certain glues, surfaces of heavily-glazed papers, and especially dried meats; but differs in that grease of all kinds, fatty meat and liquid or moist food are utterly avoided. The roach flourishes on a diet of bread and beer, while the Fire brat never touches liquids.

¹ Escherich. Das System der Lepismatiden. Zoologica Heft 43.

Since it shrivels up and perishes in a dry, hot atmosphere and can flourish only if it has access to moisture at least every forty-eight hours, it apparently absorbs the moisture necessary for its metabolism through the cuticle.

This winter, 1929-30, I have found it in an apartment house in Vancouver, where it persisted, in spite of strenuous persecutions, in a concrete building, with a minimum amount of shelter, behind the sink, two small built-in cupboards, and the apertures in the floor around steam-pipes. The owners of the flat did not know how long it had been in the building.

I am interested to see if it will survive in Vancouver under normal household conditions, during the long dry summers. Unless it can get access to moisture during this season, I question if it will survive from year to year.

It can readily be exterminated by sprinkling a thin film of sodium fluoride around the situations it frequents, in the manner recommended for the destruction of the german cockroach.



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