

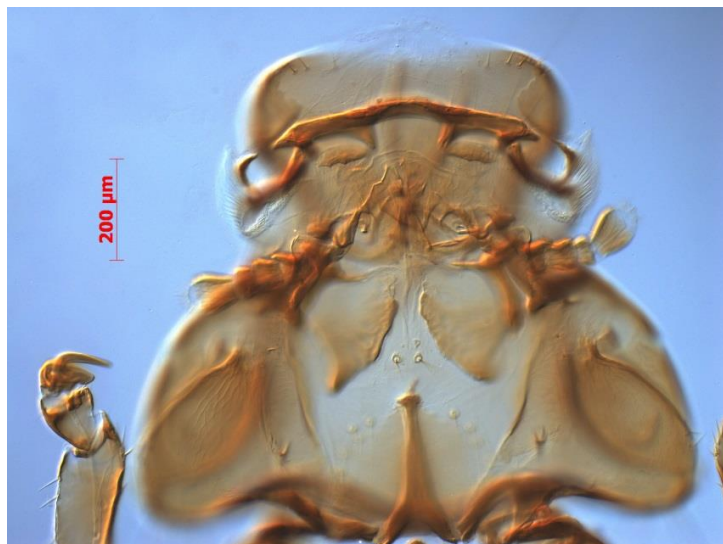
## **Mystery Louse Infests Ruby-throated Hummingbirds in Manitoba**

Terry D. Galloway

Department of Entomology, University of Manitoba

Come May each year, thousands of Manitobans hang up their brightly coloured sugar-feeders in anticipation of the arrival of ruby-throated hummingbirds. Their whirring wingbeat, their aerial acrobatics and their pugilistic interactions with other hummingbirds and wasps alike at the feeder provide the patient observer hours of entertainment. How rare it is, though, that people contemplate what lies beneath the brilliant feathers of these wonderful creatures. There lives a relatively enormous chewing louse, rarely seen and one offering a fascinating biological puzzle.

This louse, seen in the photo below, is somewhat unusual as a chewing louse, because its mouthparts are modified to be able to pierce the skin for blood-feeding. They are wingless, females are more than 2 millimetres in length, and they cement their eggs to the feathers of their host hummingbird. They are found only on the ruby-throated hummingbirds, where they are present in very small numbers. I have examined 56 hummingbirds from Manitoba over the past 24 years, thanks to the co-operation with rehabilitation hospitals in the province. These birds had all died or had to be euthanized at the hospitals. Each was washed carefully to remove the ectoparasites. Only 9 (16.1%) were infested with this louse, each infested bird infested with fewer than 3 lice. Compared to northern flickers, where about 86% are infested with about 127 per infested bird, that's not many lice, despite flickers being a lot larger. Not only that, of the 25 lice I have collected from hummingbirds, 13 were females and there has been only one male. Clearly this is a very unusual louse. How does it persist at such low levels of infestation?



**The head of a chewing louse which infests ruby-throated hummingbirds in Manitoba.**

Not only that, but we don't really know what to call this louse. A louse was described from ruby-throated hummingbird way back in 1896 by H. Osborn, who named it *Physostomum lineatum*, based on a poor description and no illustrations. This louse has not been collected since, but the name was later changed to *Trochiliphagus lineatus*. The louse infesting hummingbirds in Manitoba is a species of *Trochiloecetes*, based in part on its unique head shape. Is this an undescribed species new to science, or was the name *Trochiliphagus* misapplied? Maybe Osborn's original description has been misinterpreted. It's hard to say with certainty, especially since the original three specimens collected by Osborn have been lost. Only time and collections of more male specimens may help to sort out this interesting puzzle.

So the next time you see ruby-throated hummingbirds whizzing about your yard, think about whether or not they are carrying this mysterious and fascinating louse.