

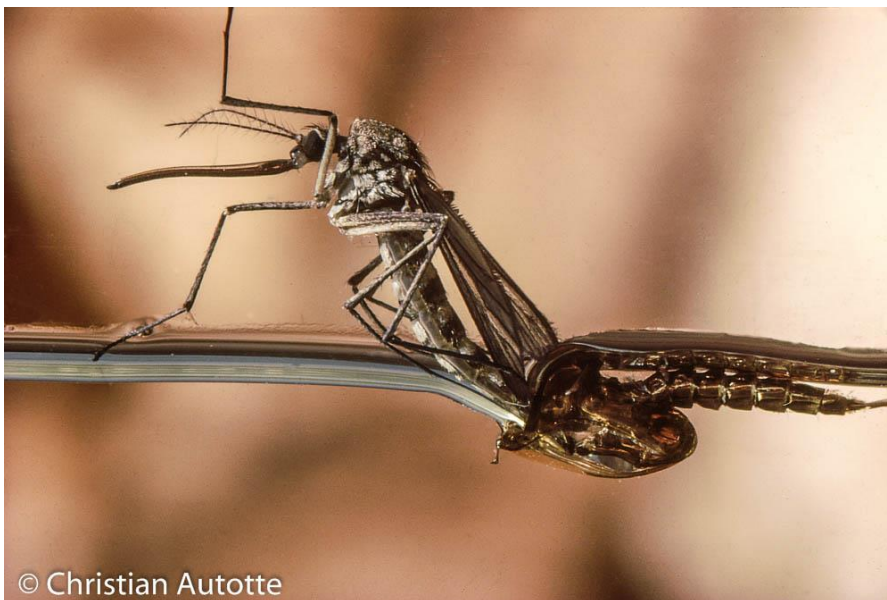
SURPRISE IN AN OLD SAMPLE

I have always been fascinated by what goes on inside nymphs and cocoons. In a few days or weeks, what was once the cells of a larva melt and merge into a whole new critter, an adult butterfly, dragonfly, or mosquito. I wish I could see the process as it is taking place inside that shell. When looking at a mosquito nymph we may get the impression of seeing a convoluted digestive system, but that can't be as the nymph does not eat. What we are seeing are really elements of the forming adult mosquito, most likely the legs and mouth parts.



© Christian Autotte

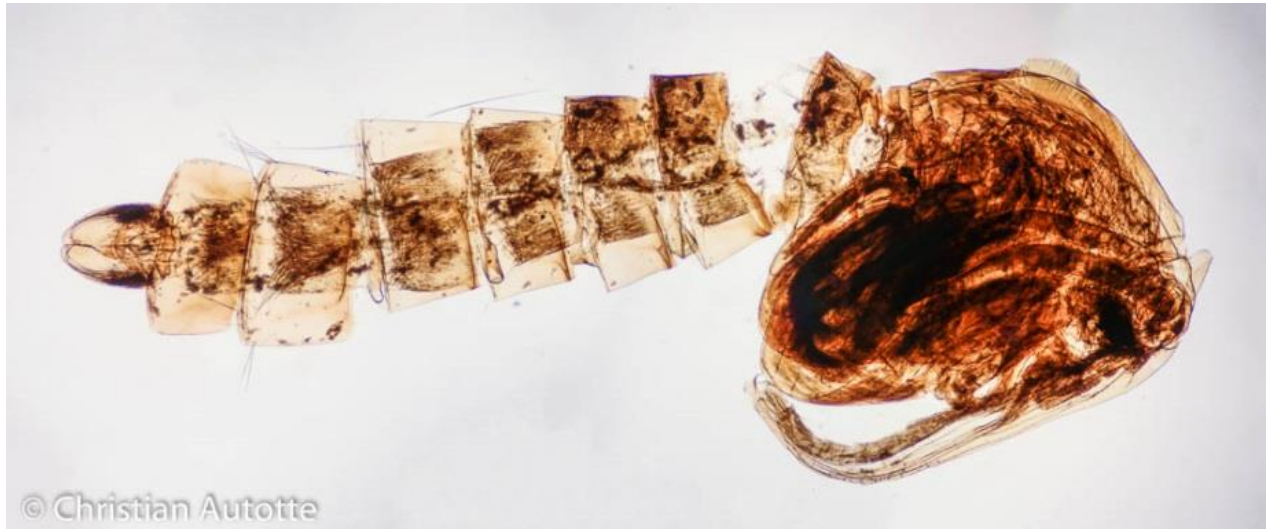
The nymph of a mosquito.



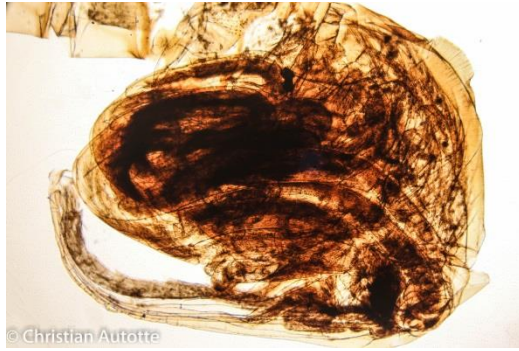
© Christian Autotte

Birth of a mosquito... and this is a blood hungry female...

A while back, I was looking through some old samples that had been forgotten in a corner of my lab. One of them was a made up of several mosquito larvae and nymph kept in alcohol. They had marinated for so long that some specimens were falling apart, rendered virtually useless. Others seemed to be still acceptable, so I decided to make a few permanent mounts. When I looked at them a few days later, two of the nymph held a surprise in the shape of unborn adult mosquitoes still inside the nymph shell...



Two mosquito nymph found in the old forgotten sample. Both are in poor shape, more or less decomposing. Both photographed as a series of 40x pictures and assembled as a final panoramic image.



© Christian Autotte

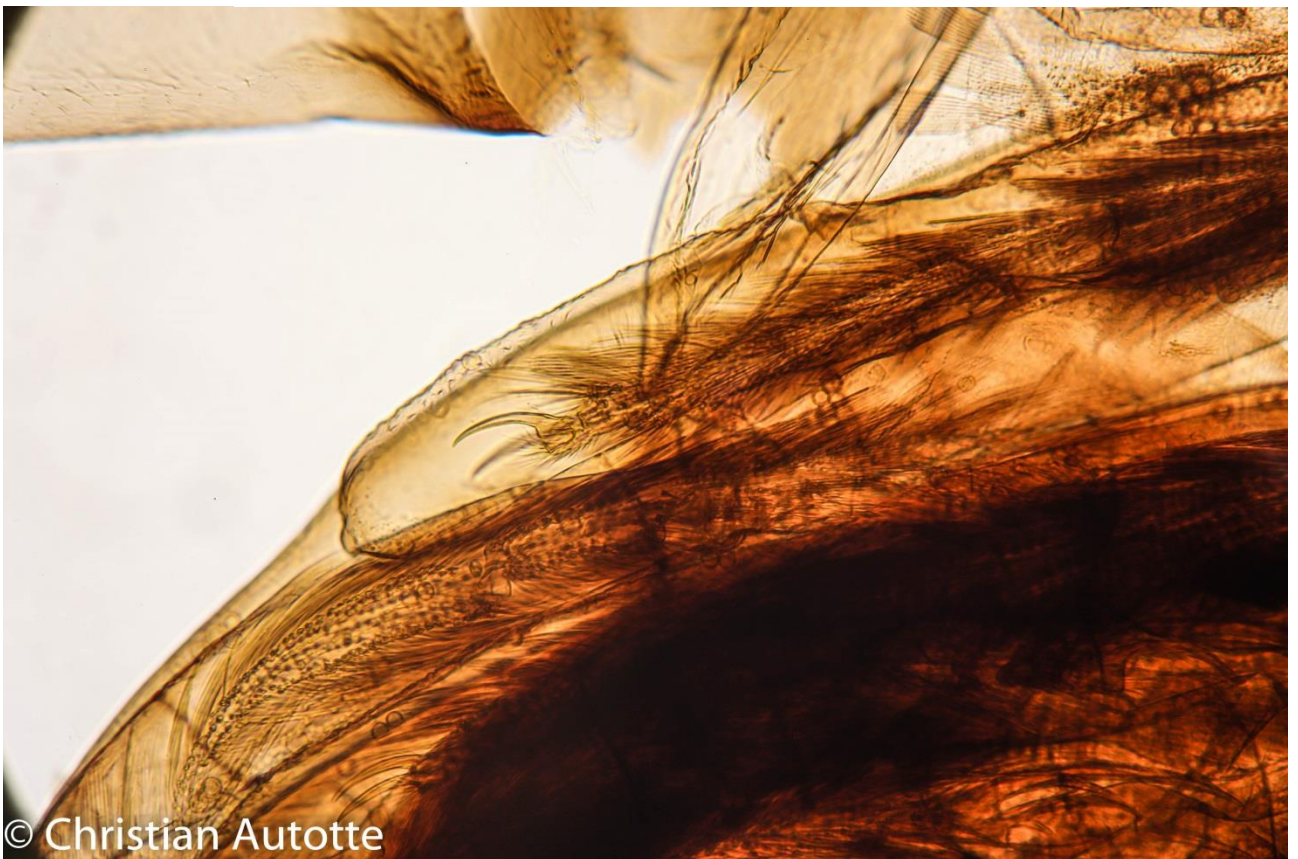
40x

The outer skin of the first nymph seems to have broken out, partly releasing the long proboscis of the forming mosquito. Further examination revealed a mosquito foot fully formed, with claws and hairs, in the upper part of the nymph body.



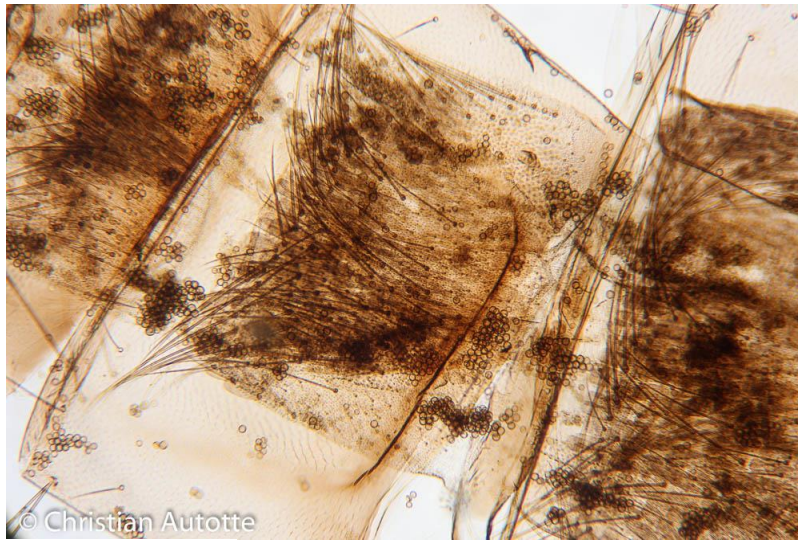
© Christian Autotte

Proboscis, 100x



© Christian Autotte

Leg and foot with claws, 200x

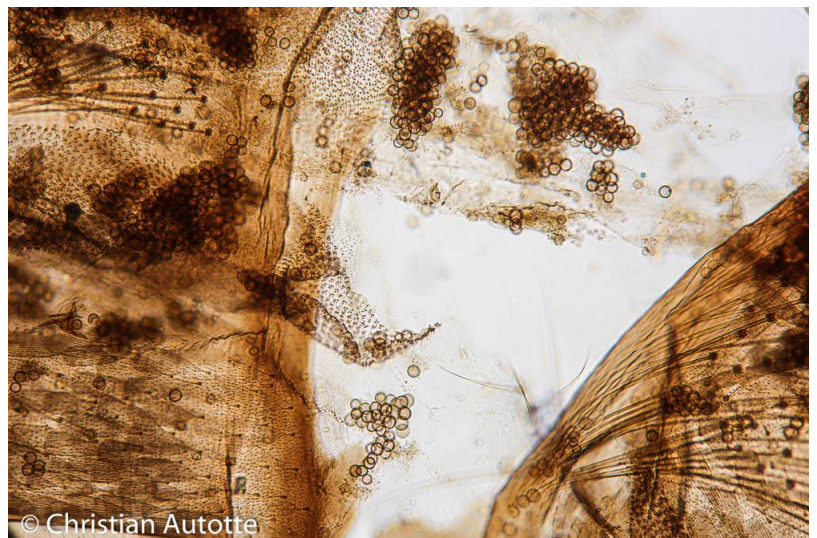


100x

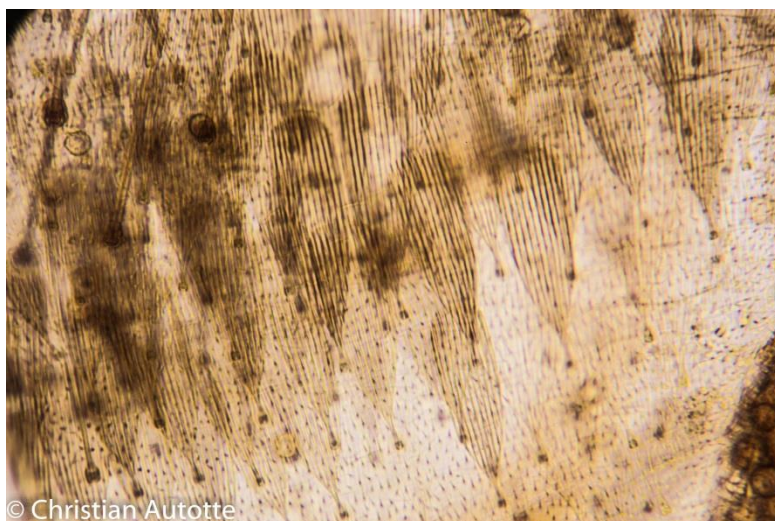
Inside the nymph abdomen we can see the abdomen of the mosquito to be, covered with long hairs and scales. However, I have no idea what those masses of round globules might be; they are all over the place. They may very well be some kind of mold that had time to develop before the sample was placed in alcohol. So much time has gone by that I can't recall exactly how the sample was handled.



400x



200x



400x



400x

The second nymph seems to have been more advanced in its development and probably more degraded through time. The developing mosquito is almost entirely out of the nymph skin and I think that only the thorax of the nymph remains; its abdomen is gone, apparently with the abdomen of the mosquito itself. But what remains is fascinating.



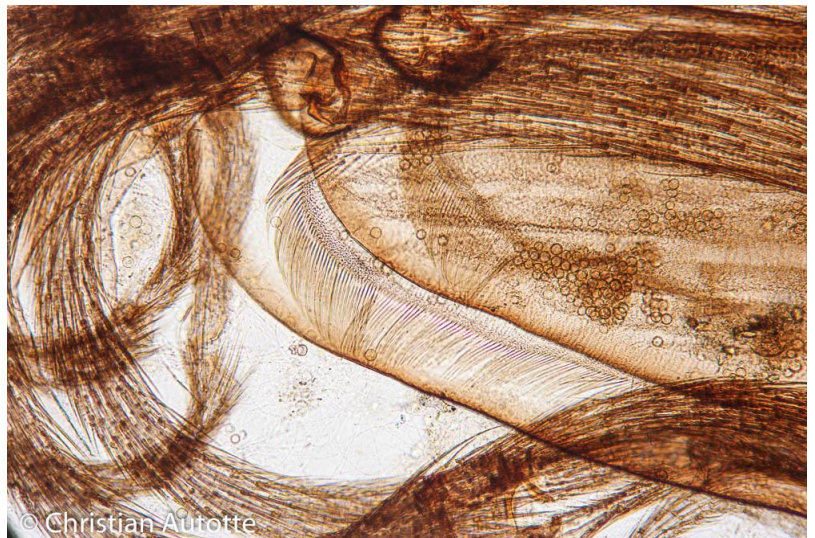
© Christian Autotte

200x

We can clearly see all the legs, flexible like twine and still bent as they were inside the nymph. Above them, the fully formed wings are easily recognized by the fringe of scales. The adult eyes are also unmistakable. However, I can't locate the mouth parts; they are either missing or bent under the body.

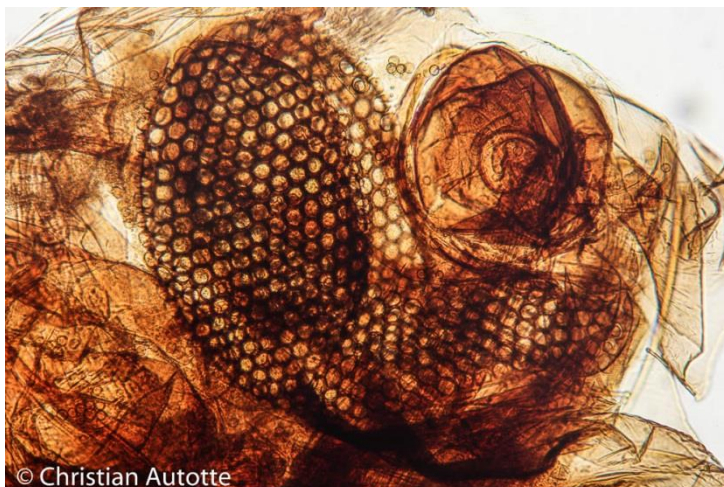


© Christian Autotte



© Christian Autotte

200x



© Christian Autotte

200x

Trying to interpret what I am seeing is not always easy; it's like trying to read an X-Ray picture. Some of what I see has to be from the nymph skin; other elements are inside and must be part of the adult mosquito. The whole thing is fascinating. I wish I had more expertise in preparing specimens and a bit more time to go further in my investigations. In the future (my retirement is less than two years away...) I plan to capture some mosquito larvae and sacrifice the nymphs at specific intervals in the hope of seeing the developing mosquito inside. A quick search on the Web has failed to turn out such pictures. Who knows, it might be a first. And all that happened because I took a second look at some old and long forgotten samples...

Comments to the author Christian Autotte welcomed,
email: cautotte.9001 AT videotron DOT ca
Published in the September 2020 issue of Micscape magazine.
www.micscape.org