

Notes from a Rogue Entomologist:

# The Snakefly—an Oregon native

BY RICHARD J. HILTON

Our native insect fauna is nothing short of remarkable, but it seems like the insect invaders and exotic pests get all the press. While it is certainly understandable that a new or re-emerging pest will get a lot of ink, the media does have a tendency to go overboard. For instance, the resurgence of the bed bug, while an important story has, in my opinion, been blown out of proportion; “if it bleeds, it leads” as the old press adage goes. I do not mean to suggest that the media should not be reporting on blood sucking parasites, however, I wish they would have spent at least half as much time exposing the Wall Street con artists as they devoted to the bugs hiding under our mattresses. But I digress. The bed bug will have to wait while I introduce one of our native insects, the snakefly.

First, the snakefly is not a true fly. True flies are a large group of insects that only have two wings, like the mosquito or house fly, while most other adult insects have four. Snakeflies are a rather small group of insects related to lacewings. The wings fold over the body like a tent when the insect is at rest and have a netlike venation. Some of our local snakefly species can get fairly large, with an overall body length of almost an inch and if you happen to see a female with her long slender ovipositor, the total length can approach one and a half inches. You may see a snakefly alighting on your window or screen as things warm up in the spring and early summer. They are not uncommon, particularly if you live near wooded areas.

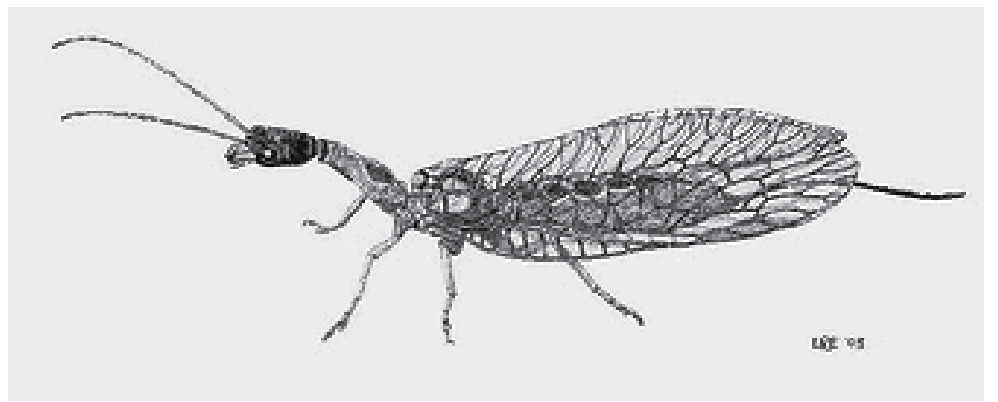
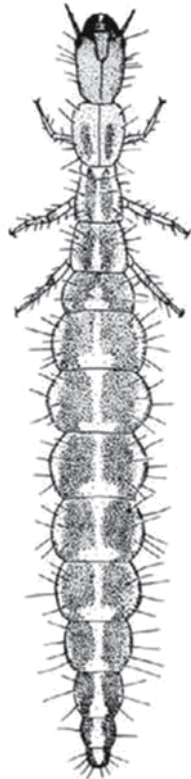
They get the name ‘snakefly’ due to the fact that their prothorax, the segment right behind the head, is quite elongated which allows them to raise their head well above their body giving them a decidedly longneck or snakelike appearance. Snakeflies are voracious predators in both the adult and larval stages and are considered to be beneficial insects in our local orchards. The larvae also get quite large and have a long slithering body that with not too much imagination can

resemble a snake. I found a report stating that snakefly larvae were one of only two insects that could move as fast backwards as forwards but I do not know how much actual research went into that determination. The larvae often inhabit bark and can live for as long as two to three years, which is unusual as few insects live for over a year. On more than one occasion I have had large snakefly larvae brought into the office and the first question is usually “What the heck is this thing?” followed by “Is it dangerous?”

While snakeflies can look scary, they are essentially harmless. The long ovipositor of the female can be mistaken for a stinger (and the stinger in bees and wasps was originally derived from an ovipositor) but snakeflies do not sting. They do have some substantial mandibles so they might be able to deliver a bite if handled too roughly but that has not happened to me, at least not yet. Once when I was sampling pear orchards with a

beating tray, which is a low tech method consisting of beating a tree limb and catching what falls off on a flat piece of white cloth, I made an interesting discovery regarding the snakefly. I was collecting all the beneficial insects in vials to take back to the lab and determine the species but when I found a snakefly that had fallen on the tray all the vials were already occupied so I put the snakefly in with a syrphid or hover fly that I had collected. Hover flies are true flies and their larvae are very good predators of aphids and other soft bodied insects. As you might guess, when I returned to the lab, the vial which had the snakefly and hover fly now contained only the snakefly and the two wings of the hover fly. Apparently snakeflies do not like the taste of hover fly wings.

In the US, snakeflies are only found west of the Rockies, but they are also found in Europe and northern Asia and are considered to be relict species or living fossils, as the species still alive appear to be remnants of an earlier and more widely distributed group. The oldest snakefly fos-



sils date back to the Jurassic period over 100 million years ago and it seems that many snakefly species went extinct as a result of the same asteroid impact that brought about the demise of the dinosaurs. An entomologist should probably not have a favorite insect but I do have a soft spot for the snakefly. I was a little dismayed to see that the snakefly had won Arizona’s “ugly bug” contest in 2009. The snakefly may be odd looking, a little weird perhaps, but to my eye the snakefly’s unusual appearance is one of its more endearing features. So the snakefly does not live back east but is an Oregon native that thrives here, one of the

good guys that eats other insects—what’s not to like?

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PICTURE ABOVE: Snakefly adult—line drawing  
<http://www.flickr.com/photos/7519633@N08/4344599919/>

PICTURE LEFT: Snakefly larva—line drawing  
[http://2.bp.blogspot.com/\\_sdr4EyRWQ94/TFzYdjTl61I/](http://2.bp.blogspot.com/_sdr4EyRWQ94/TFzYdjTl61I/)

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