

# Bug of the Month

by Jim Revell / August 2015

## Scorpionfly

**Class: Insecta** ■ **Order: Mecoptera (Scorpionflies, Hangingflies)**  
**Family: Panorpidae** ■ **Genus: Panorpa**



Male {L} and Female {R} Scorpionflies; photos by B. Newton 2005  
[www.uky.edu/Ag/CritterFiles/casefile/insects/scorpionflies/scorpionflies.htm](http://www.uky.edu/Ag/CritterFiles/casefile/insects/scorpionflies/scorpionflies.htm)

One day this month, I was working in the garden and noticed a ½ inch-long insect resting on a Black-eyed Susan flower. It had long lace-like wings with black markings. I was able to observe it for a few minutes before it flew away. A day or so later, I discovered another one of the insects resting on the stalk of a Jerusalem Artichoke (Sunchoke) in my vegetable garden.

In researching the insect, I discovered it to be a Scorpionfly, so named because of the external male genitalia resembling the stingers of scorpions, although the male Scorpionfly cannot sting, and the female Scorpionfly does not have this structure in her anatomy.

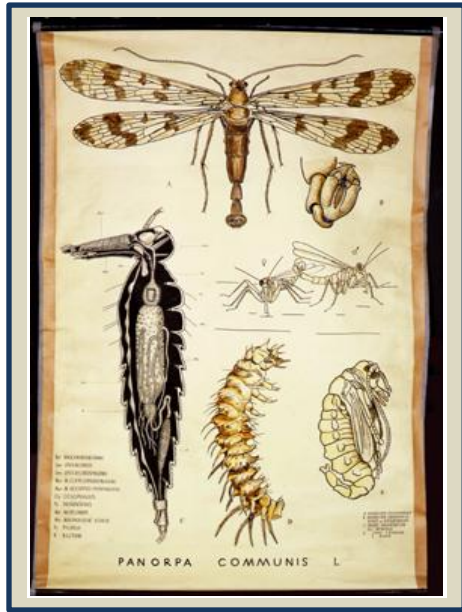
Scorpionflies are in the order Mecoptera, “meco” meaning “long,” and “optera” meaning “wing.” This refers to the shape of both front and rear wings. These insects are easily recognized by the long “rostrum” (stout beak) at which the chewing mouth parts are located.

Scorpionflies are a curious group of land insects that generally live in moist WOODED HABITATS. *There are five families and 68 species of Scorpionflies in North America, ranging across the continent.*

Both adults and larvae are OMNIVOROUS, feeding on decaying vegetation and dead or dying insects. Photos at the right (taken by B. Newton in 2005) depict the identifying “LONG ROSTRUM” (upper photo) and, in the lower photo, a Scorpionfly munching on a juvenile mantid (a little afternoon snack). Both photos can be found at the same web address noted above.

The LIFE-CYCLE of the Scorpionfly is a complete metamorphosis (including egg, larval, pupal and adult stages) with the female laying small egg masses in the soil. Note the interesting “life-cycle” drawing below, taken from an historic entomology textbook.





Drawing of a Scorpionfly Larva (from Miyake 1912, Tokyo Journal of the College of Agriculture. Vol. 4, 117-139)



LARVAE generally remain in the soil. They have chewing mouth parts and resemble caterpillars or white grubs. See the drawing above, representing a Scorpionfly Larva drawn in 1912 and included in the Tokyo Journal of the College of Agriculture.

PUPAL stages over-winter and adults emerge in the summer. ADULTS have an elongated head, a stout beak with chewing mouth parts, and long wings often mottled with patches of color.

Interesting to note:

- ① Some female Scorpionflies will accept a male suitor only if he brings a gift (a meal of some sort).
- ② Finding this works, males occasionally mimic females in order to get a free meal!!
- ③ Scorpionflies at times will rob spider webs of their freshly caught prey.

**Scorpionflies are NOT a pest.**

Photo Reference / Lifecycle from Historic Entomology Textbook:  
[www.2.hu-berlin.de/biologie/zoologie/sammlung/Tafeln/PterygotaV.html](http://www.2.hu-berlin.de/biologie/zoologie/sammlung/Tafeln/PterygotaV.html)

Research References / Resources:  
[www.cals.ncsu.edu/course/ent425/library/compendium/mecoptera.html](http://www.cals.ncsu.edu/course/ent425/library/compendium/mecoptera.html)  
<http://www.uky.edu/Ag/CritterFiles/casefile/insects/scorpionflies/scorpionflies.htm>  
<http://bugguide.net/node/view/56?printables=1>

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 Read more of his articles on the "Jims Bugs" page @ [www.BedfordMasterGardeners.org](http://www.BedfordMasterGardeners.org)