

Kansas Insect Newsletter

For Agribusinesses, Applicators, Consultants and Extension Personnel



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August 27, 2010 No. 23

Green Cloverworms in Soybeans

Adult green cloverworms (see photo 1) have been very active throughout south central and central Kansas. So the larvae should be hatching or have already hatched and will start to become more noticeable throughout soybean fields. They can defoliate soybeans and, if populations are significant, this tends to cause concern. However, it is important to monitor the soybean's growth stage as well as presence of a white fungus on the cloverworm itself (see photo 2). These larvae feed principally on leaves and a well-established canopy can withstand considerable feeding with little negative impact on yield. Also, the fungus often decimates the worms before they reach treatment threshold. Check the Soybean Insect Management Guide for thresholds and insecticides registered for green cloverworm control.

<http://www.ksre.ksu.edu/library/ENTML2/Mf743.pdf>



Photo 1



Photo 2

Jeff Whitworth

Holly Davis

Dragons Fly So Do Dragonflies

Drake. Draco. Vermithrax. Smrgol. Gorbash. Yowler. Mushu. Falcor. Q. ----- all dragons that flew (and some even breathed FIRE!). I've seen some of these dragons fly across the silver screen. But alas, not in real life. However, in real life, I have seen plenty of DRAGONFLIES.

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There are numerous species of dragonflies. Most often they are observed around bodies of water. This is logical in that dragonflies are tied to a water environment. Dragonflies deposit eggs in water. Dragonfly naiads (aquatic nymphs) live in the water where they feed upon aquatic organisms. When a naiad has completed its development, it crawls out of the water and up onto vegetation at water's edge. This is followed by a final molt and the emergence of the adult form.

Frustrations and catching dragonflies go hand in hand. Anybody who has attempted to capture/net a dragonfly knows of their speed and agility. Adults are constantly on the wing skimming over waters (ponds, lakes, streams, marshes) and grassy areas in search any prey. They are nondiscriminatory, seizing/eating whatever "flying morsels" pass their way. Dragonflies seem to see what we cannot see. This is not too surprising given their massive compound eyes (occupying most of the head) which provide them a 360° view (in essence, a dragonfly is still watching you after it has flown by). These same eyes are able to detect fast motions (other flying insects). Using their unique legs to form a basket, dragonflies swoop up their prey and eat-on-the-fly, only possibly resting if they have captured a larger prey which demands a dragonfly's full attention.

Green darners are the largest dragonfly species found in Kansas with a wingspan of 4 ½ inches. Males have a distinctively colored blue/turquoise abdomen, whereas that of the female tends to be purplish-grey (Figure 1).

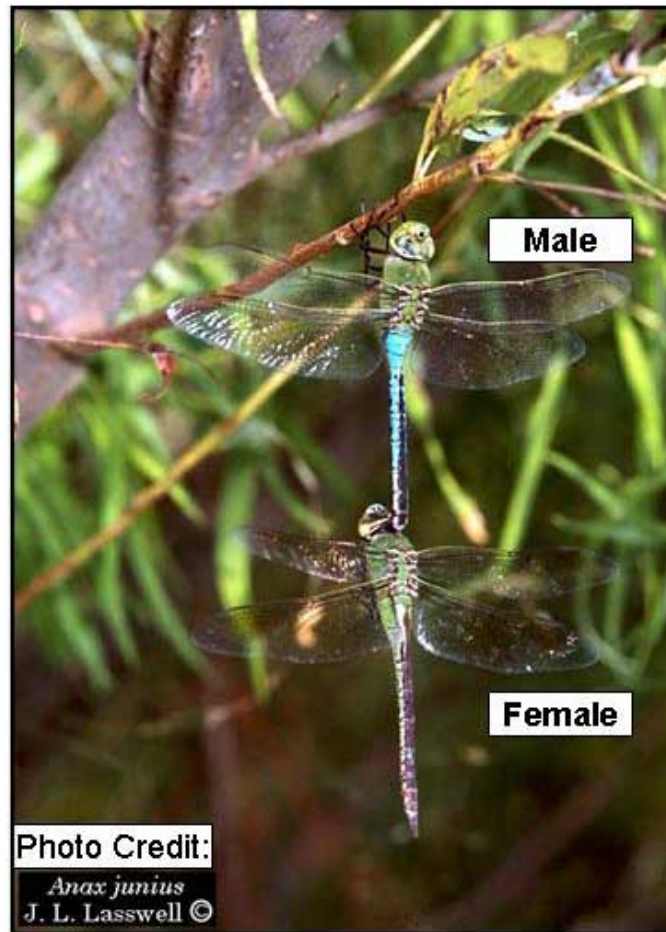


Figure 1

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Green darners also have another unique feature: they are a migrating species. And this is a bit more complicated. That is, not all green darners migrate. There are **resident populations** which strictly breed and live within a geographical area (such as Kansas).

Migrating green darners leave from their winter ranges in the southern US, the Caribbean and Mexico by riding northward on warm springtime air fronts. When they reach their northern limits, they produce the next generation of green darners which are the migrants which (in the fall) move southward as they flee ahead of cold fronts. Especially during this fall migration, swarms of green darners may suddenly gather in staging areas. Presumably the staging areas (very transitory in duration) eventually coalesce to form migratory swarms consisting of hundreds of thousands of dragonflies flying in a single direction. Once at their winter quarters, the migrants produce the next generation of green darners which will form the north-bound spring migrants.

The current dragonfly swarms are not migrating swarms. First of all, the swarms (although seemingly large) do not compare number-wise to the aforementioned hundreds of thousands comprising migrating swarms. And, the dragonflies are flying in erratic circular patterns. So what might explain these current swarms which often times occur after a long period of hot, dry weather, and with the approach of or following a rain event? It is likely that small flying insects are being targeted by dragonflies that have located and gathered over the grassy stretches from whence “their meals” are being produced. It has been observed that these swarms are composed mostly of male dragonflies which tend to range afar from water (whereas females choose to forage closer to their water habitats). Green darner dragonflies are the predominant species forming these feeding swarms.

People automatically assume that these dragonflies are wrecking havoc on mosquito populations. This **is not** the likely situation. **WHEN ARE MOSQUITOES ACTIVE?** During evening hours. By day, mosquitoes tend to remain inactive, resting on low shrubbery and bushes. And when they are active during evening hours, they have little reason to fly at great heights because the sources for their “blood meals” are on the ground. **WHEN ARE DRAGON FLIES ACTIVE?** During the daylight hours. **AND WHERE ARE DRAGONFLIES COURSING?** High above the ground where a myriad of “daytime insects” are actively flying.

To give dragonflies their due regarding mosquito control: as previously mentioned, dragonfly naiads are hunters. And mosquito “wigglers” (larvae) and “tumblers” (pupae) are fair game for the naiads. So, YES, dragonflies may lower mosquito populations. But this would be a small scale reduction. Given the plentitude of alternative aquatic life forms in natural aquatic situations for naiads to feast on, the tremendous egg production capabilities of mosquitoes, and the fact that certain “treehole” mosquito species deposit eggs in naiad-free mosquito breeding sites, mosquitoes simply are a fact of life that we must contend with ----- dragonflies or no dragonflies.

Yellownecked Caterpillars

It may seem as though I have a fixation on yellownecked caterpillars. After all, this is the sixth time that I have addressed them this year. But one has to “make hay” when the “sun shines”. It was back on **September 7, 2007**, that I caught the season’s end of yellownecked caterpillars ---- one image of defoliated trees. So, in 2008, I was ready and raring to go. NOTHING! And in 2009? NOTHING! But patience has prevailed and 2010 has been a banner year at the **2007** site.

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When addressed on July 23 (KIN #18), I speculated that by the end of August and into September, trees defoliations would be comparable to that in 2007. Two weeks ago (Aug. 12), the defoliation process had become noticeable. And as of this week, the complete defoliations had been completed (Figure 2).

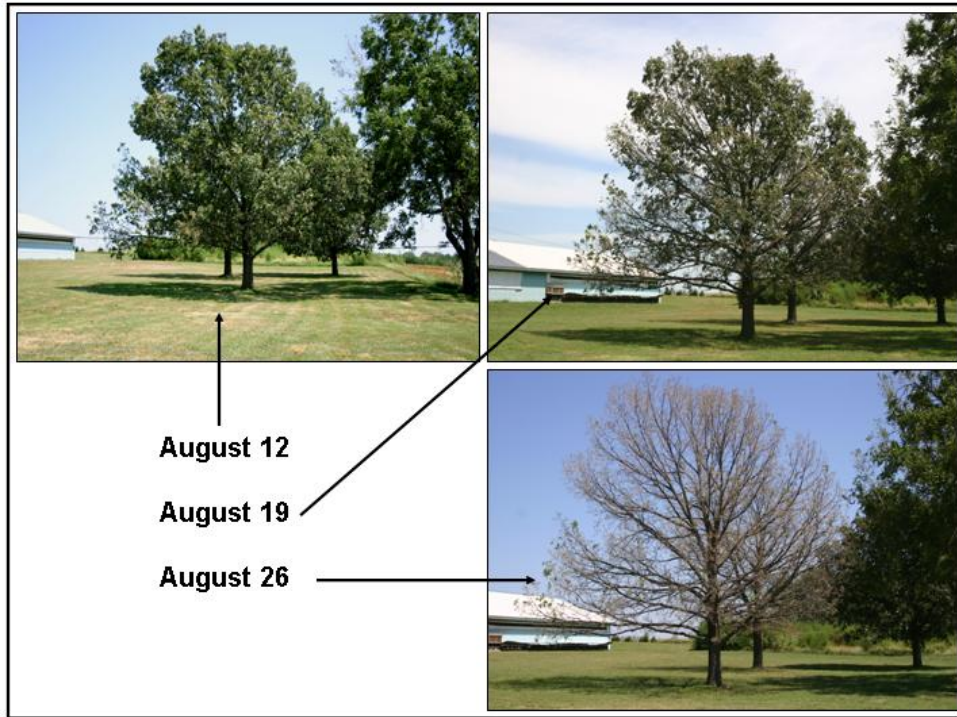


Figure 2

It's Déjà vu (Figure 3).

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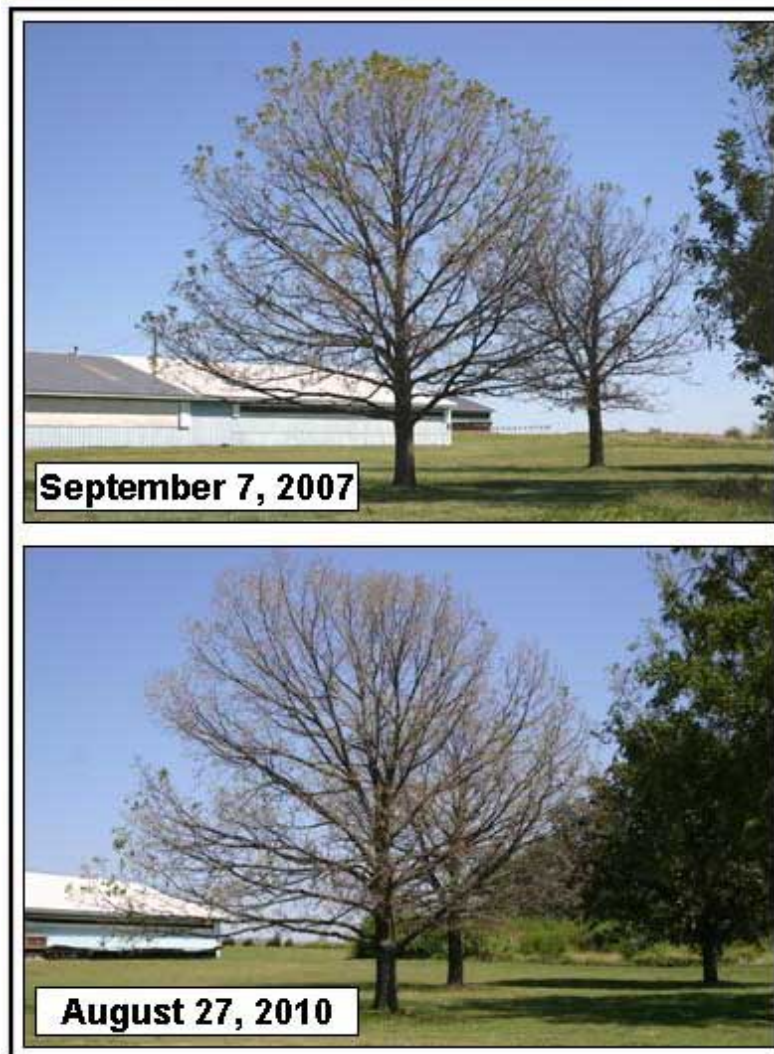


Figure 3

What is interesting to note is that there is a third oak tree which (for some reason) the moths chose not to deposit eggs. Thus to this point in time, that tree has been free of caterpillars. That is already changing. Having defoliated their 2 primary host trees, the caterpillars headed for greener pastures to resume feeding and to complete their development. The third oak tree (Figure 4) is now the focus of their feeding activities.

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Figure 4

Bob Bauernfeind

Report from the Kansas State University Insect Diagnostic Laboratory:

The following samples were submitted to the Insect Diagnostic Laboratory from August 20th to August 26th.

- August 20 2010 – Riley County – Leaf-footed bug on Catalpa tree
- August 20 2010 – Edwards County – Cossid moth on lilac
- August 20 2010 – Riley County – Silverfish in home
- August 23 2010 – Leavenworth County – Roundheaded borer in pin oak
- August 23 2010 – Sherman County – Spruce spider mites on spruce
- August 23 2010 – Ford County – Pine bark adelgid on Scotch pine
- August 23 2010 – Meade County – Spider mites and rose scale on rose bush
- August 23 2010 – Sherman County – Spider mites on black walnut
- August 24 2010 – Rice County – Soft tick – bat tick in home
- August 24 2010 – Johnson County – Rove beetles in garden
- August 24 2010 – Pratt County – Black blister beetles on tomato
- August 25 2010 – McPherson County – Juniper webworm on juniper
- August 26 2010 – Geary County – Sap-feeding beetles (Nitidulidae) around trash can
- August 26 2010 – Sherman County – Leafroller caterpillars and weevils (*Anthonomus* sp.) on crabapple

If there are any questions regarding these samples or about the identification of any arthropod please contact the Insect Diagnostician at (785) 532-4739 or GotBugs@ksu.edu.

Holly Davis

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Sincerely,

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