



# Master Diagnostician

*Newsletter dedicated to helping Green Industrists and Master Gardener Volunteers put plant diagnostics knowledge to work.*

July 2005

## Fungus Gnats and Thyreocorid Bugs

This week, samples of dark winged fungus gnat larvae and Thyreocorid bugs came into the Plant Disease and Insect Clinic at North Carolina State University.

Darkwinged fungus gnats normally go unnoticed because organic matter outdoors, and they particularly abundant in the. Sometimes fungus gnats emerge noticeable because they house or on plants in the yard. fungus gnats in the yard are

One exceptional thing is their mass migration apparently source. The maggots stick a ribbon sometimes as much as long so that the mass of larvae resembles a silvery snake! This is a startling sight, but it is perfectly harmless. An image of a maggot mass crossing the road is available on the web at:

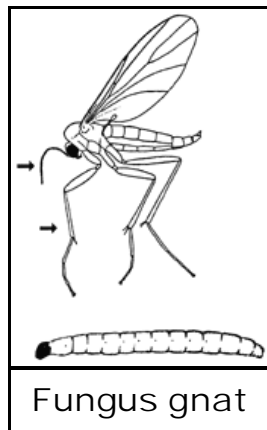
<http://www.ces.ncsu.edu/depts/ent/notes/O&T/flowers/note29/fungusgnat.jpg>.

(The reason they do this is to get to the other side of the road, says D.L. Stephan, Extension Entomologist, North Carolina State University.)

Also, there have been two dramatic reports of the Thyreocorid bug, *Galgupha*, found in large numbers in a home yard. This insect usually is found near grasses, weeds and shrubs where they mostly feed on flowers and seeds. Some species of this family cause injury to plants, including food crops and ornamentals.

Female bugs attach their eggs with a sticky substance on plants. After hatching, immature larvae feed on plants along side of the adult insects. Normally, they are not considered important plant pests. Occasionally some species have been reported to damage cotton.

A sprayable formulation of Sevin insecticide to control these bugs on infested shrubs and even turfgrass around the home should be adequate, if the bugs become abundant enough. A follow-up spray



Fungus gnat

are native insects that they inhabit decaying are usually not overall landscape. in large numbers and are congregated around the. Except for being a nuisance, harmless.

about fungus gnat maggots in search of a new food together and slither along in one inch wide and a yard

may be required several days later if the bugs persist. The residue will not be very toxic to the bugs once the spray mixture has dried and rain washes the Sevin away. Some of the other common pyrethroid-based insecticides also should be effective.

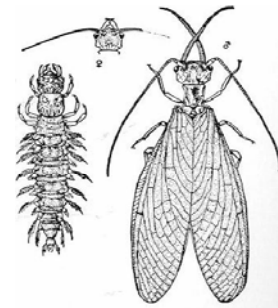
Treatment is up to the homeowner. I would not be inclined to do a widespread spray of the yard, but one could concentrate on certain problem areas. Sometimes these insects migrate into houses and become an annoyance.

Additional information on insects in the Family Thyreocoridae is available in a University of Florida Department of Entomology and Nematology publication on the web at: [http://entnemdept.ifas.ufl.edu/choate/Florida\\_thyreocoridae.pdf](http://entnemdept.ifas.ufl.edu/choate/Florida_thyreocoridae.pdf).

*Stephen B. Bambara*  
*Extension Entomologist*

## Dobsonflies Return

Adult dobsonflies are beginning to occur at lights at night. Larvae are known as hellgrammites and live in streams underneath rocks. The hellgrammite has been known to deliver a strong pinch. Adults emerge around late spring or early summer and are often seen fluttering around bright lights or porch lights at night. Despite the appearance of the large jaws on the adult males, this stage does not bite.



Females are very similar, but lack the large mandibles and have a smaller head.

*Stephen B. Bambara*  
*Extension Entomologist*

## You Might Spot Twospotted Spider Mites Early



With the final arrival of some high temperatures, spider mites should be turning up soon. A little scouting and early treatment can prevent more severe symptoms later in the season. Daylilies, roses, butterfly bush, hollyhock, some cultivars of euonymus, marigolds and bedding plants are often infested by twospotted spider mites during the

summer. Because spider mites flair up in dry weather, their control is somewhat difficult because plants that are wilted are much more susceptible to pesticide injury than turgid plants. Also, plants are much more likely to be burned if pesticides are applied during mid-day. Watering plants thoroughly before spraying and spraying in early morning or late afternoon so that the pesticide residue is dry before the bright, noonday sun hits it helps to lessen the chances of plant injury.

Because spider mites are tiny and relatively fragile, they can be dislodged from ornamental plants by hosing the plants down with water from an ordinary garden hose. Don't use a strong spray on a tender plant. Insecticidal soaps and horticultural oils are fairly effective for spider mite control. Commercial growers have a good selection of miticides.

Control of spider mites depends heavily upon an understanding of the biology of the mites. These mites are usually found on the underside of leaves.

Thorough application of pesticides to the underside of the plant foliage is essential for good control. In hot weather, another application may be suggested 7 to 10 days later to kill mites that were in the egg and resting stages during the first application. During dry, hot weather, examine plants regularly for reinfestation or for the offspring of mites missed on the first application.

For chemical management, use one of the following pesticides according to label.

<u>Chemical</u>	<u>(Trade name)</u>	<u>Formulation</u>
bifenazate	(Floramite)	
*fluvalinate	(Mavrik)	23% Flowable
*horticult.oil	(Sunspray, Ultra Fine)	98.8% EC
*insecticidal soap	(M-Pede, Safer's)	50.5% EC
hexythiozox	(Hexygon)	
abamectin	(Avid)	2% EC
bifenthrin	(Talstar)	10% Wettable Powder
disulfoton	(DiSyston)	15% Granular

*Stephen B. Bambara and  
Christine A. Casey*

*Extension Entomologists*

## Assassin Bugs

Assassin bugs, such as the well known wheel bug, will be appearing soon. In fact, the nymphs are already active and "assassinating" other insects as we speak. Because they change shape and coloration during nymphal stages, it is often hard to distinguish the species until adulthood. We had a nice picture sent to us from Nash County and here is an image of a probable wheel bug nymph sucking the life out of a barklice adult. This group of insects is generally considered helpful since they eat other insects. Handling them may earn you a painful bite, however.



*Stephen B. Bambara and  
Christine A. Casey*

*Extension Entomologists*

## Flower Thrips Late

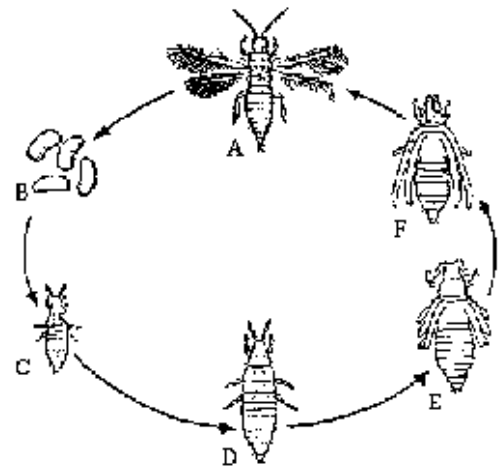
Similar to most of the field crop reports, thrips seem to be delayed this season. We are beginning to see them in some samples, however, in low numbers. Flower thrips occur on outdoor roses, dahlias, and other plants. Female flower thrips are yellow-brown to amber in color, with an orange-colored thorax and are barely visible to the eye (1/16 inch). Males are slightly smaller and more pale in color than females. The most notable character is the fringed or feather-like wings.

Because of their small size, flower thrips are carried over large areas by wind systems. Flower thrips are found throughout North Carolina with the peak migration normally occurring during the first week of June. We're not sure what to expect this year. They reproduce throughout the year in North Carolina, with the majority of their 12 to 15

generations occurring in the warmer months. They seem to prefer grasses and yellow or pale blossoms. Roses seem most susceptible in June. Flower thrips feed by

piercing the leaf or petal surface and drawing sap from injured cells. On ornamental plants, this damage is usually restricted to the flowers. For example, rose blossoms turn brown and buds open only partially. The petals, distorted with brown edges, seem to stick together. During warm periods, swarms of these tiny, orange-colored insects often fly in late afternoon. These thrips can bite people, but only cause an attention-getting sensation.

*Stephen B. Bambara and  
Christine A. Casey  
Extension Entomologists*



Flower Thrips. A, adult. B, eggs, C first larva, D second larva, E prepupa, F pupa