Insects:

**Jack Pine Budworm** – I have completed the jack pine budworm egg mass surveys in the following counties: Adams, Eau Claire, Jackson, Juneau, Monroe, Portage, and Wood. The populations that seemed to be building earlier this year in Jackson, Juneau, and Monroe counties have crashed. I did not find any jack pine budworm egg masses in those locations.

However, I did find budworm egg masses (photo at right) once again in red pine plantations in Adams, Juneau, and Wood counties. Just like in 2004-2007, the egg masses are found in younger red pine plantations (20-30 year old). In Adams County the red pine plantation I found two egg masses in, are in the same plantation I originally found budworm in back in 2004, the Town of Big Flats, section 14. In Juneau County in the Town of Armenia, section 32, I found two egg masses also. And in Wood County in the Town of Saratoga, section 36, I found one egg mass. I have no idea if this means anything or not. I just find it interesting that after two years of not finding any egg masses in red pine, I am starting to find them again. The pattern of counties where I found budworm this year is very similar to what I found in 2004-2005.

I need to complete jack pine budworm egg mass surveys in Dunn, Pierce, and St. Croix counties. I plan to finish these surveys within the next couple of weeks.

**Ips Bark Beetles** – You may have noticed in the last couple of weeks some pine trees are starting to fade in color, from green to pea green to yellow to red (photo at right). The culprit for this is the Ips bark beetle. I think the reason we have not seen any pines fading earlier this year is because of all the rain we have had this growing season. The rain helped the trees to be able to defend themselves against beetle attack. I have seen some pines with pitch tubes on them where they tried to defend themselves and “pitch out” the attacking Ips bark beetles (photo at left). I have not seen this response in pines to bark beetle attack in years. It is good to have moisture during the growing season.
**Pine Spittlebug** – Two weeks ago I received an e-mail with photos attached of a white pine where the new growth was yellowing. The homeowner wanted to know what was wrong with the tree and I did not have a clue. After I saw the photos, I started noticing other white pine around the region showing the same yellowing of the new growth (photo at right). I looked at a few white pines showing this yellowing of the new growth. I believe the reason for the yellowing of the new growth is because of Pine Spittlebug. If I remember correctly, the population seemed to be fairly high this year. The pine spittlebug feeds by putting its mouthparts into the branch and feeding on the juices of the tree. The spittle mass is formed from excess plant juices that the spittlebug excretes. When the spittlebug inserts its mouthparts into the branch, it creates a wound. When I peeled the bark off the branches, I found what looks like spittlebug feeding wounds in the branch. The feeding wounds look like small brown spots in the branch (photo at left). I believe this is the cause of the yellowing of the new growth on the white pine.

**Diseases:**

**Leaf Diseases** – There are a wide variety of leaf diseases out there that are affecting the leaves of hardwoods, from ash to willow. The leaf diseases are making the trees look brown and/or dusty and are also causing some premature leaf drop. With all of the rain we have had this year, this is expected. If the trees are healthy, the leaf diseases should not cause the trees any long term health problems in the future.

**Other:**

Since Labor Day is this weekend, I thought I would supply you with an insect recipe you can try on your family and friends this coming weekend - Enjoy.

**Recipe from: Entertaining with Insects Or: The Original Guide To Insect Cookery, by Ronald L. Taylor and Barbara J. Carter, Illustrated by John Gregory Tweed**

**Jalapa Dip** – From Jalapa, Guatemala, comes the idea for this spicy dip. Live (properly cleaned), canned, or frozen insects are the best to use.

- ½ cup Basic Cooked Insects, chopped
- ½ cup cottage cheese
- 3 tablespoons jalapeno peppers
- 2 tablespoons chives, chopped
- 2 tablespoons cilantro, minced
- 2 teaspoons lemon juice
- 1 teaspoon cumin
- Salt and pepper to taste

Combine all ingredients. Mix well and chill. Serve with crudités such as jicama and celery.
Basic Cooked Insects
1 cup cleaned insects
2 cups water
1 teaspoon salt
2 dashes pepper
1 tablespoon butter
½ teaspoon sage
2 tablespoons onion, finely chopped

Place ingredients in a medium sized saucepan. Bring to a boil and allow to simmer for 30 minutes or until tender.

Previous issues of this update and regional forest health updates from NOR, NER, SCR/SER, and WCR are available from the WI DNR Forestry website at: http://dnr.wi.gov/forestry/fh/inthenews/