

OHIO Woodlands Water Wildlife

Summer/Fall 2015

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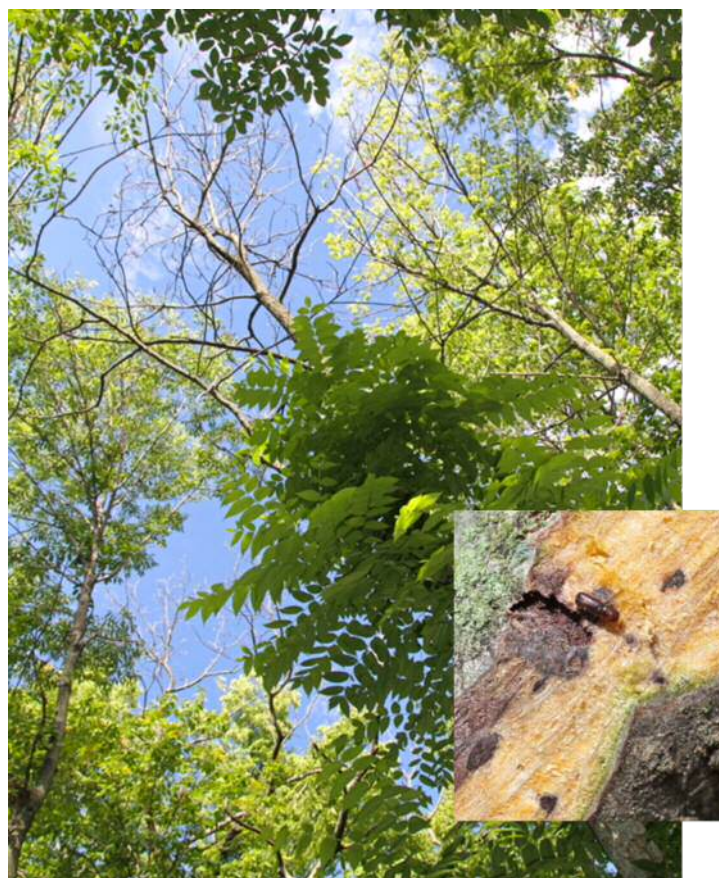
Recent Developments with Thousand Cankers Disease in Ohio

Tom Macy, Forest Health Program Administrator, ODNR
Division of Forestry

In late 2012, walnut twig beetle (WTB), the insect vector of thousand cankers disease (TCD), was caught in Ohio Department of Natural Resources (ODNR) Division of Forestry traps in Butler County in southwest Ohio. This remains the only county where the insect has been detected in the state. The fungal pathogen that causes TCD, *Geosmithia morbida*, was subsequently confirmed from infested trees in Butler County in 2013. The ODNR Division of Forestry and Ohio Department of Agriculture (ODA) continue to monitor WTB traps across the state. In 2014, no WTB were detected in any traps in Ohio monitored by the ODNR Division of Forestry and the ODA. The cold winters of 2013-14 and 2014-15 might have played a role in decreasing the population of these beetles in Ohio.

In 2014, the known infested black walnut trees in Butler County were felled and examined as part of a U.S. Forest Service research project led by Dr. Jennifer Juzwik. Work by Dr. Juzwik and others has shown that WTB is attracted to stressed trees, which is often the case with trees planted in an urban environment, or those planted in a site to which the tree is not well-suited. Black walnut prefers moist, deep, fertile, well-drained soils with a near neutral pH (7.0). It is also intolerant of shaded conditions. Dr. Juzwik's research has also revealed that wood-boring insects other than the WTB can carry the *Geosmithia* fungus, however, their relative importance as vectors of TCD needs further investigation. Recent research seems to suggest that TCD may be a type of typical "decline" disease, impacting trees that may be weakened by drought or storm damage, planted in a poor site, or nearing the end of their biological lifespan. Interestingly, in Tennessee, there has been evidence of recovery of trees in decline from TCD over a period of several years. This could suggest that drought stress combined with TCD infection

caused the initial decline, and favorable weather and moisture conditions allowed trees to survive and fight off branch dieback. Accordingly, the best recommendations we currently have for landowners is to minimize stress to walnut trees as much as possible. This could include



Yellowing and thinning crown on walnut (above)
Walnut twig beetle and gallery on young walnut stem. (insert)
Photo credit: Joe Boggs, Ohio State University

irrigating during dry spells, mulching to reduce soil compaction, and avoiding wounding injuries to trees. Any potential symptoms of TCD infestation including premature yellowing or wilting of walnut leaves, crown decline and dieback, or presence of many, small brown cankers just beneath the outer bark of branches, should be reported to the ODA or ODNR Division of Forestry for further investigation. You can also report suspect trees with the Great Lakes Early Detection Network (GLEDN) app available for download at <http://go.osu.edu/GLEDN>.

2015 Gwynne Conservation Area Schedule of Events

	Cabin	Wildlife & Aquatics	Woodland
Tuesday			
10:30			
11:00	Going Native in the Garden, <i>Sara Ernst</i>	The Ever-flipped Pond: Better Water Quality Through Aeration, <i>Eugene Braig</i>	
11:30	Energy Savings for Households and Congregations: Energy Stewards, <i>Greg Hitzhusen</i>	Food Plots <i>Rob Chapman</i>	Woodland Invasive Species ID and Control <i>Stephen Rist</i>
12:00	Environmental Impacts of Shale Oil and Gas Industry, <i>Joe Bonnell</i>		Introduction to Tree ID <i>Kathy Smith</i>
12:30	Rain Barrels <i>Julia Cumming</i>	Bluebird Bios <i>Marne Titchenell</i>	
1:00			Another Boring Talk: Asian Longhorn Beetle Update, <i>Amy Stone</i>
1:30			Trees and Taxes <i>Lenny Farlee</i>
2:00		Native Grass and Wildflower ID <i>Rob Chapman</i>	
2:30		Is My Pond Toxic <i>Eugene Braig</i>	
3:00	Talk areas at the Gwynne Conservation Area		
Wednesday			
10:30		How to Build an Effective Deer Exclusion Fence <i>Lenny Farlee</i>	The Alphabet Soup of Invasive Species: TCD, HWA, EAB, ALB, GM, VLB, and more! <i>Amy Stone</i>
11:00	Nature's Gliders: The Flying Squirrels <i>Marne Titchenell</i>		
11:30		Management and Basics of Pond Aeration <i>Perry Orndorff</i>	
12:00	Tree Selection: Choosing the Right Trees for Your Site, <i>Amy Stone</i>		Conservation Tree Planting <i>Lenny Farlee</i>
12:30		Aquatic Vegetation Management <i>Perry Orndorff</i>	Woodland Invaders – Plants that Grow Everywhere! <i>Kathy Smith</i>
1:00	Home Composting <i>Sara Ernst</i>	Bats: What You Didn't Learn Watching Batman <i>Marne Titchenell</i>	
1:30			
2:00		Is My Pond Toxic <i>Eugene Braig</i>	
2:30		Fish Species Selection and Stocking in Ponds <i>Bill Lynch</i>	
3:00			
Thursday			
10:30	Rain Barrels <i>Julia Cumming</i>	Management and Basics of Pond Aeration <i>Perry Orndorff</i>	
11:00	Environmental Impacts of Shale Oil and Gas Industry, <i>Joe Bonnell</i>		Emerald Ash Borer: After the Big Wave, What's Next? <i>Amy Stone</i>
11:30		Fish Species Selection and Stocking in Ponds <i>Bill Lynch</i>	Keys to Tree ID <i>Kathy Smith</i>
12:00	Tree Selection <i>Amy Stone</i>	Aquatic Vegetation Management <i>Perry Orndorff</i>	
12:30		Is My Pond Toxic <i>Eugene Braig</i>	
1:00	Ohio Woodlands, Water, and Wildlife Newsletter	2	An Ohio Woodland Stewards Program Publication

2015 Gwynne Conservation Area Schedule

Join us at the Gwynne Conservation Area for Farm Science Review September 22, 23, 24, 2015. This year's program once again will cover a variety of topics with several covering woodland invasive pests – both plants and insects. Sessions will also cover tree id, tree planting and trees and taxes (yes there is a connection!).

We have combined our wildlife and aquatics talks into one area but still have a good cross section of topics. Some of these include how to build and a better deer exclusion fence, warm season grass ID, pond aeration, fish species selection and stocking and a talk on bluebirds.

The cabin area will play host to talks on rain barrels, shale oil and gas impacts, flying squirrels, tree selection and energy savings.

Advance tickets for Farm Science Review are \$7 at all OSU Extension county offices, many local agribusinesses and online starting in July at fsr.osu.edu/visitors/tickets. Tickets will be \$10 at the gate. Children 5 and younger are admitted free. Hours are 8 am to 5 pm September 22-23 and 8 am to 4 pm September 24th.

A Plan to Manage

Kathy Smith, Extension Program Director - Forestry

Do you have a management plan for your acreage? If not you should think about trying to put something together that can guide you in maintaining a healthy woodland that best meets your needs. The plan can be as complicated or as simple as you wish, it all depends on you.

One of the first steps in the process is thinking through why you have the woodland and what do you want from that woodland. In other words, set some landowner objectives for the acreage. Some examples of landowner objectives include (but certainly are not limited to):

- Wildlife habitat
- Source of income
- Inheritance
- Aesthetics
- Recreation
- Preservation
- Tax shelter
- Exercise/hobby

Let's break a few of these down. Wildlife management is usually at the top of any survey done that ranks landowner's objectives. However, you need to think a little deeper on this one. Do you want to manage wildlife

to hunt (deer, turkey etc.) or wildlife to enjoy (bird watching, wildlife photography etc.)? Do you have specific species you want to manage for?

Recreation can have a long list of options as well, including hiking, horseback riding, and camping to name a few. As a source of income the woodland can yield periodic harvests of trees as timber income, or also some other non-timber products such as maple syrup and mushrooms.

Many of these objectives work well together so don't think that you have to choose just one. One of many examples would be making cuts to improve wildlife habitat. Sometimes these cuts can also provide income, or release trees to perhaps enhance future income. Most landowners have multiple objectives – that doesn't



You have the woods, now work on a plan.
Photo credit: Kathy Smith, Ohio State University

mean that every square inch of the property is managed for every objective. It means that the acreage as a whole is managed to provide those objectives in a desirable mix across the landscape.

Once you have a defined set of objectives, the next step is to inventory your resources to see if you have the components necessary to achieve your desired objectives. An inventory can and should include a wide variety of information. What tree species do you have and in what quantity? What is their size and condition? You are going to want to have well marked boundaries so that any practice you implement is not encroaching

on the neighbor's property. Interested in wildlife? You need to think about what kind of wildlife and see what habitat is present on site. You should also inventory streams, vernal pools and any other water feature that is on site. Include anything you think would impact your ownership objectives.

Once the inventory is complete it is time to see if the objectives you defined can be met by the inventory of what you have on site. If it doesn't, are there things you need to do to create certain components or is it just that what you have and what you want don't match. Are there things that need done that you are willing and/or able to invest some time and/or money in? Sometimes there isn't a financial return but more of a satisfaction of reaching the desired objective. All of this is about moving your management process forward.

Lots to think about! Plans are not and should not be stagnant. While having a plan in hand is a great tool, remember that everything changes and something may happen that results in you needing to reevaluate what you put in the plan (think emerald ash borer). Re-visit the plan on a regular basis – somewhere in the 5-10 year range.

Get help! There are resources available – use them. The Ohio Department of Natural Resources, Division of Forestry has service foresters available to help you with this process. You can see who your forester is for your county at <http://forestry.ohiodnr.gov/serviceforesters>. There are also private consulting foresters available to assist you with your management goals. A list of private consulting foresters is available at <http://www.osafdirectory.com/>. There is also a fact sheet available that talks in more detail about management plans. It can be found on our Woodland Stewards website <http://woodlandstewards.osu.edu> under publications, forestry (Forest Management: Developing a plan to Care for Your Forest F-34-02 <http://woodlandstewards.osu.edu/publications/forestry>).

It all starts with a plan.....



Song Sparrow – *Melospiza melodia*

Dr. Christopher Tonra

Sometimes, certain birds can be so ubiquitous they slip past our senses and become part of the background music outside our doors. They may be lacking in brilliant colors or flashy displays, but give them a closer look and



Song sparrow (*Melospiza melodia*)
Photo credit: Linda Tanner, Los Osos, CA, USA

you will find a lot of charm and a fascinating creature. One such bird probably lives in your garden or on your woodland edge, skulking through the thicker brush and every so often alighting atop a tall perch to do what they do best—sing. This small, brown and gray bird with a heavily streaked breast and central spot would be easy to overlook if it weren't for that song, throwing its head back and filling the air with the distinctive two-note introductory “seep, seep” followed by a collection of trills and warbles. The aptly named Song Sparrow (*Melospiza melodia*) can be found almost anywhere in Ohio, from river corridors to marshes to suburban gardens and urban parks. They epitomize what ecologists like to call a “cosmopolitan” species.

Not only are they found throughout our state, but this species can also be found from Alaska's Aleutian Islands, across much of Canada and south to northern Mexico. This adaptability, encompassing many different habitats and climates, has made the species very diverse. Plumage color ranges from dark brown to bright red, songs from each coast are distinct and life histories can be completely different in one area compared to another. For instance, birds from northern Canada migrate substantial distances between breeding and wintering areas while the Song Sparrow in your Ohio

garden is likely to spend all year there, as long as it has food.

The regional differences in color are not by accident. Travel through their range and you will find that sparrows in mild wet climates like the Pacific Northwest are dark brown with little white and no red. Compare this to our Ohio birds, which have rich, rusty reds and lots of white on the breast. These differences are thought to be the consequence of mild winters—dark brown pigments (melanins) are great at strengthening feathers, so the darker the feather the stronger it is, making it resistant to feather-chewing parasites. Sparrows in areas that have mild winters are darker because they cannot rely on cold winters to kill off parasites. Here in Ohio, harsh winters kill parasites and melanin pigments are not as necessary.



Ohio's Song Sparrows are special for another reason, especially those along the Olentangy River in central Ohio. In fact in the world of ornithology, these particular sparrows are quite famous, not so much for their own qualities but because of the groundbreaking scientist who studied them for many years. In 1927 Margaret Morse Nice moved to Columbus, Ohio, with her husband. Already an accomplished scientist with a master's degree, a rarity for women at that time, it was in Columbus that she became one of the most famous ecologists and ornithologists of her time. At a time when most research focused on taxonomy and collection, she conducted one of, if not the, first studies of individual birds and their life histories. She followed about 70 pairs of Song Sparrows throughout their whole lives, constructing detailed histories of their successes, failures and personalities. She published two famous works chronicling her studies—her scientific writings “The Life Histories of the Song Sparrow Parts 1 & 2” and her popular writing “The Watcher at the Nest.” These works opened up a new era in ornithology that continues today as researchers focus more on ecology and behavior of individuals as opposed to simple descriptions of new species and sub-species.

Of course, one cannot speak of the Song Sparrow without discussing their song. If you listen to a Song Sparrow you will note that an individual sings not one but several variations on their song. This is known as their “repertoire.” A given male sparrow can sing anywhere from 5 to 12 different songs. The reason for this variety is that it carries a lot of information, both for females and other males. One of the most important things it communicates is how long an individual has been at a given site, which is a good indication of a high quality male. Males learn songs as they are in the nest listening to their father and his neighbors. Their repertoire will be a mixture of songs they have heard. If when they are grown they can acquire a territory near the one they were born in, they will share a lot of songs with their neighbors. Over time, the more songs a male shares with his neighbors, signals that he has been on that territory a long time. So other males can listen and know the singer is old and experienced, and thus not to be trifled with. Females look upon that experience as an indication of a good sire for their offspring and will select him over others. That song of theirs isn't just for show! So next time you are in your garden or walking through a wetland, listen for that often overlooked bird, throwing his head back in song, sitting atop a shrub. These carefree birds nesting in the thickets are a joy to observe. Watch as they feed their hungry young and enjoy them all through winter as they visit your feeders, braving snow and wind. You will find these diminutive but hearty birds will warm your heart throughout the year.

Meet Dr. Christopher Tonra



I am a conservation biologist who integrates the fields of behavior, physiology, and ecology. I grew up in New York (Long Island).

After getting a degree in anthropology at SUNY Albany and working temp jobs on Wall Street, I moved to California to pursue wildlife ecology at Humboldt State. I received my M.S. studying cowbirds in the eastern Sierra Nevada under Matt Johnson. I then went to the University of Maine/SMBC for my PhD work. There I worked with Becky Holberton and Pete Marra studying seasonal

interactions of songbirds. I was a post-doc at the Smithsonian before I began as an assistant professor at The Ohio State University in August of 2014. My primary research interests lie in examining the underlying

mechanisms for how individuals interact with their environments, with a particular focus on avian systems. Revealing such mechanisms is critical to effective management and conservation.

Calendar of Events

July 23	Forest Health: Non-Native Invasive Insects	Geauga County
August 7	The Good, The Bad, and The Hungry: Managing Wildlife Conflicts in the Landscape	Lucas County
August 14	Tree Diagnostic Workshop	OSU Mansfield
Sept 22-24	Farm Science Review	Madison County
October 17	Capturing Natures Wonders	OSU Mansfield
October 30	Winter Tree ID	Geauga County



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Look for newsletter articles, links to fact sheets and other publications by browsing our site. Registration for upcoming Woodland Stewards classes may also be done electronically.
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