Hamden Land Conservation Trust

Natural News

Spring/Summer 2023

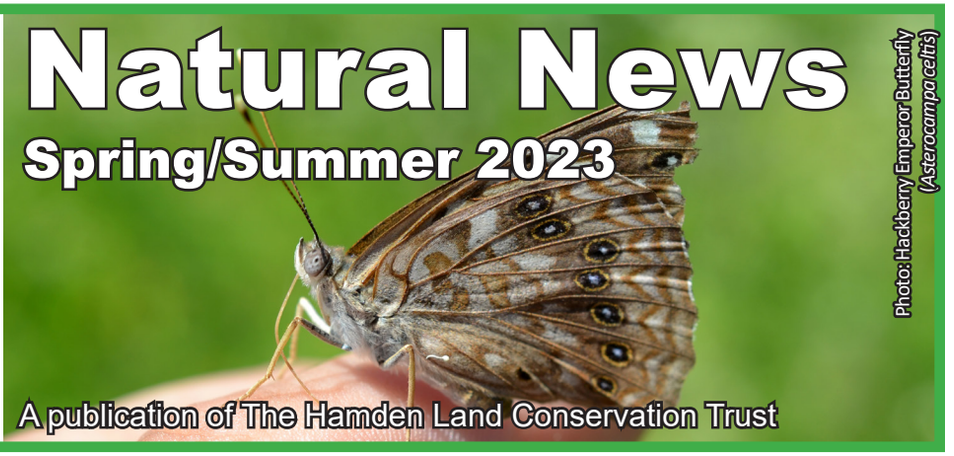


Photo: Hackberry Emperor Butterfly (*Asterocampa celtis*)

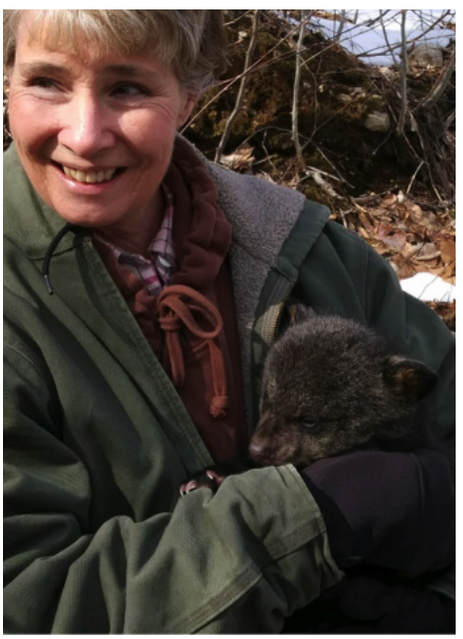
A publication of The Hamden Land Conservation Trust

President's Message: Looking Ahead

A look at your land trust's exciting new projects

I'm sitting on my deck admiring the vibrant colors of spring - the bright green foliage, flowering trees in pink and purple, the clear blue sky of a sunny day. The colors of nature just take my breath away. Knowing how much your land trust is doing to preserve the beauty and diversity of nature right here at home makes it even better.

Your Land Trust has several large projects in the works this year. We are conducting an ecological survey on our newest property at 59 Brooksvale Avenue. This will give us baseline information on the native and invasive plants and recommendations on how to make improvements for wildlife and the health of Jepp Brook, which borders the parcel. We will also be doing surveys to assess use of the property pre- and post-improvements by wildlife such as birds, butterflies, bees, and moths. This will be a multi-year project and we hope you will join us for special volunteer work parties and educational walks.



Gail Cameron, President

The Town of Hamden and Save the Sound are installing a large rain garden in Town Center Park. Your land trust will be supplying plants thanks to a generous grant from the Claire C. Bennitt Watershed Fund. This garden will help filter stormwater, and restore habitat. Currently, runoff flows from impervious surfaces along Dixwell Avenue and neighboring streets into storm drains and a pipe which empties directly into the park. Stormwater runoff carries serious pollutants: chemicals, brake dust, particulates, and more. By installing this garden, the water will be slowed down to percolate into the ground, removing pollutants and sediment, protecting water quality in Pardee Brook and the Mill River Watershed. Volunteer planting days will be in late spring/early summer. Watch for more information to come.

We are also working with the Pollinator Pathway Organization (www.pollinator-pathway.org) and scientists from the Connecticut Agricultural Experiment Station (CAES) to increase the number of native plantings along the Farmington Canal Trail and remove invasive plants. We hope to tie this in to a study of bumble bees to be conducted by CAES looking at ideal distances between foraging patches and other issues. There will be events to publicize the efforts as well as educate the public about the importance of pollinators.

I'm pleased to report that we had our first in-person program since the start of the pandemic on March 29th at Thornton Wilder Hall. We heard an informative presentation on jumping worms by Dr. Annise Dobson, postdoctoral associate at

In this issue:

the Yale School of the Environment. These invasive worms are becoming a serious problem across the U.S. and it was good to learn more about what can be done to try to control their populations. Thanks to all who attended; it was wonderful to meet back in person again. If you weren't able to attend and have not heard about jumping worms, they are just another in a growing list of invasive pests we have to worry about. See more about them on page three in this newsletter.

Now that most of us are more comfortable with gathering, we hope to get back to more in-person programs like this. Being able to interact with you, our members and the public, means so much to us. We welcome your ideas for programs and your support is what keeps us going. Please keep in touch through our website and Facebook pages and join us whenever you can. I'm very excited about what we'll be doing in the coming months and hope you are too. Stay well and get out to enjoy nature every day.

Gail Cameron

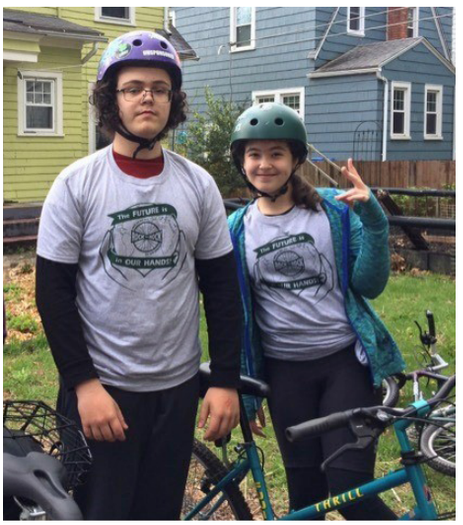
A Special Day of Service

Recapping this year's Rock-to-Rock

- By Craig Repasz, HLCT Board Member

Each year, your land trust participates in the Rock-to-Rock cycling event and its sister event, the Day of Service. This year's Day of Service was held at our Johnson's Pond property on April 25. Land Trust board members, organizational members, and constituents were joined by Day of Service volunteers who found us on the Day of Service website, as well as Johnson's Pond neighbors and 25 Quinnipiac University student volunteers.

Four work parties took on separate tasks: removing invasive pachysandra throughout the property; conducting trail definition and maintenance by spreading wood chips on the trail from the entrance, extending well past the pollinator garden; removing weeds and tidying the pollinator garden that was planted last summer by Master Gardener Jane; and building wildlife-friendly brush piles to provide habitat for wildlife in the area. As crews finished their tasks, people moved on to removing forsythia in the back of the property. HLCT board members also took time out to share information on educational topics of local interest, including bobcats, bears, rabbits, pond succession, the impact of invasives, and plants for pollinators. This stewardship event was a great opportunity to meet new neighbors who will continue to further the stewardship of the property. Thank you to all of our volunteers and to our riders in the Rock to Rock event that followed.



Left: Rock-to-Rock is New Haven's permier cycling event. Photo by: Tracy Zarillo
Right: Our Rock to Rock Day of Service was a great opportunity to meet new neighbors who will continue to further the stewardship of our Johnson's Pond property. Photo by: Robert Irwin

All You Never Wanted to Know About...Jumping Worms

Learn more about this invasive garden pest

- By Barbara Reck, HLCT Board Member

They are every gardener's and forester's nightmare. And they seem to be everywhere.

Jumping worms are non-native, invasive earthworms that get their name from their behavior. When disturbed, they thrash, spring into the air, and can even shed their tails to escape. On March 29, your land trust was fortunate to host Dr. Annise Dobson, postdoctoral associate at the Yale School of the Environment, to talk about invasive jumping worms, their biology, impact, and control mechanisms at the Hamden Library.

Though few other than serious gardeners are aware of it, most earthworms that we encounter in our yards and gardens are non-native, originally from Europe. Long ago, our native earthworms were displaced by those brought from Europe by colonists. Jumping worms, however, are in a class by themselves. They were introduced to the U.S. from east Asia in the 1940s but only started their rapid population expansion over the past 10-20 years, likely accelerated through movement of soil and mulch for commercial and residential applications. Jumping worms are clearly visible from June to November, in color more greyish than their European cousins and identified through their white clitellum ("necklace"), in contrast to the pink clitellum of European earthworms, and their crazy movements when disturbed or picked up.

How worried should we be about jumping worms? Dr. Dobson made it clear that jumping worms present a serious threat to native plant communities and the wildlife that depend on them. They rapidly mineralize the organic matter of the soil, removing the organic growing medium that the fine roots of young plants depend on and reducing the water-holding capacity of soils. The result is a granulated, greyish-black soil that resembles coarse coffee grounds. Since this effect is predominantly in the top layer of the soil (~3-12 inches) not all plants are affected the same. Poison ivy and some invasive species are quite tolerant to the presence of jumping worms, while many native plants with shallow root systems, such as trillium and True Solomon's Seal can suffer greatly. Young plants whose root system is limited to the upper soil level are particularly vulnerable, while mature plants with deeper reaching roots are less affected.

Left: Uninfested rootball. Right: Rootball infested with jumping worms. Right corner: Jumping Worm. Photos by: Annise Dobson, Ph.D.

Researchers have found that areas infested with jumping worms have a much lower diversity in native plant cover. This effect is further emphasized when additional pressure from deer or invasive plants (such as invasive stiltgrass) is added, suggesting that native plant communities can deal with one but not several stressors at the same time.

Once established, jumping worm colonies are here to stay and difficult, if not impossible, to eradicate. Accordingly, preventing further invasion is the single most important management tool that can start in your backyard. Soils and mulch are the main pathways for jumping worms to spread, while long suspected tire and boot treads seem to be of less concern. To avoid unknowingly introducing jumping worms consider buying bareroot plants rather than potted plants or

inspect potted plants carefully for any infestation (cocoons are visible to the bare eye). Any mulch, topsoil, or compost that may be infested should have been heat-treated to 104F for three days, and care should be taken not to allow re-infestation. If planting bare root is not possible, any trade of plants is best done after washing the roots prior to introducing them to a new area.

For further information, the Connecticut Agricultural Experiment Station has published a fact sheet "Jumping Worms in Connecticut" (April 2022) that summarizes key facts and control options.

A Rain Garden for Town Center Park

A new partnership with Save the Sound

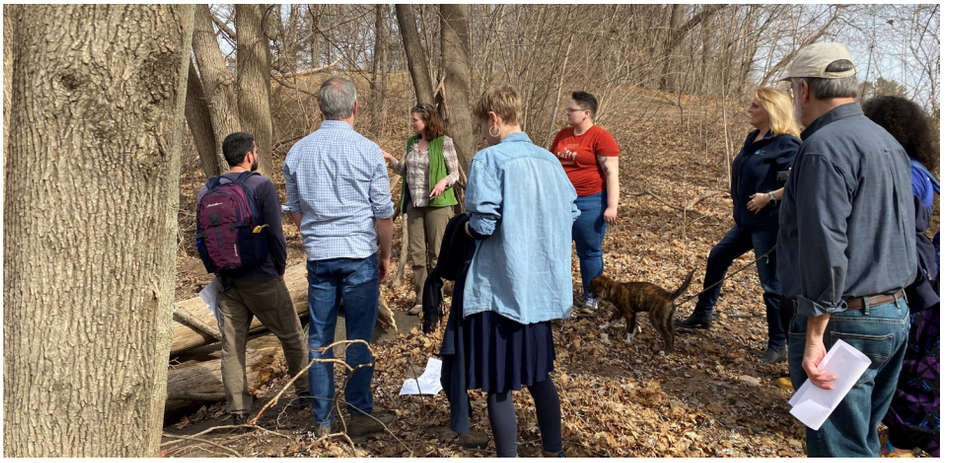
- By Willow Ann Sirch, HLCT board member

Your land trust is partnering with environmental protection organization Save the Sound in an exciting project at Town Center Park. Approximately 2.5 acres of land at the park are being upgraded from lawn to a large-scale rain garden to help filter stormwater, restore habitat, and create a greener and more resilient town of Hamden. Construction for this transformation, led by Save the Sound, started this past April. The finished garden will feature up to 7,000 native grasses, flowers, and shrubs. Your land trust is assisting the project by planting a portion of the rain garden with generous funding from the Claire C. Bennett Watershed Fund.

What is stormwater? Stormwater is polluted rain water that runs off roofs, pavement, and other hard urban surfaces. It's filled with particulates, chemicals, tire dust, and other harmful substances. Currently, stormwater runoff from an 88-acre urban watershed flows from impervious surfaces along Dixwell Avenue and neighboring streets and homes into storm drains and through a pipe, which directly discharges stormwater into Town Center Park. After even moderate rainfall —less than one inch— this system quickly becomes inundated, offering little to no treatment of sediment or pollutants. In heavy rains, runoff often sheet flows onto the lawn and directly into Pardee Brook diversion channel, which flows into the Mill River. Untreated stormwater that enters our waters leads to health hazards such as *E. coli* outbreaks and other pollution-derived ecological reactions. Treating this runoff will improve the water quality of the Mill River and Long Island Sound.

To treat runoff at Town Center Park, Save the Sound and the Town of Hamden are constructing a large-scale rain garden at the outfall of the drainage pipe. Rain gardens are a form of green infrastructure that help filter pollutants from stormwater as it flows from hard, impervious surfaces such as roads, sidewalks, and roofs to the nearest waterway. They are strategically designed with layers of soil, sand, and rock and include native plants, which together act as a sieve to remove a variety of pollutants. Fertilizers, road salt, and chemicals are trapped in these layers and in roots of plants, cleaning the water before it enters the waterbody.

The project will manage more than 20 million gallons of stormwater each year from the surrounding drainage area, improving water quality and restoring the natural hydrology of Shepard Brook and the Mill River. It will also improve habitat for native flora and fauna and provide a pocket of nature to be enjoyed by the community. Your land trust is pleased to be a part of this important town improvement project.



HLCT Board members Jim and Willow Sirch and Save the Sound staff visited the site prior to the onset of construction at Town Center Park this past spring. Photo by: Willow Ann Sirch

No Mow May

A local perspective on a growing movement

- By Tim Mack, HLCT Board Member

Each spring, like clockwork, I was one of those guys wandering garden centers looking for the best deal on a lawn care program of fertilizer and pesticide. I would roam up and down the aisles reading bags of turf-builder describing the 4-season program to a gorgeous green lawn free of weeds and insects. I was programed to repeat this lawn care ritual for decades until I finally stopped.

Having grandchildren play on my lawn made me stop applying fertilizer and pesticides. I have been free of this grass feeding ritual for five years now and my lawn still looks green and healthy. I mulch the lawn clippings back into the turf, which nourishes the lawn naturally. My lawn has dandelions, violets, and clovers but my grandkids can play on the grass free of pesticides.

Another lawn ritual recently caught my attention: "No Mow May", a practice where you let the grass and weeds grow until June. The tall grass and flowering weeds could attract pollinators searching for early pollen. You could also purchase a "No Mow May" sign to alert your neighbors that you are not neglecting your lawn, but feeding pollinators.

I confess I did not buy a sign. I knew I could not wait until June to finally mow and manicure my rolling monoculture landscape. However, I did refrain from grass cutting until early May. I watched for the bees to light upon my many dandelions, but they did not frequent the golden blossoms dotting my lawn. The bees were a buzz in the flowering crabapple tree ignoring my overgrown landscape of invasive weeds.

A recent study confirmed my observation that bees and other pollinators prefer to collect pollen from native plants and will not frequent the non-native, invasive weeds growing tall during "No Mow May". Dandelions are very low in protein and bees cannot rear offspring on dandelion pollen alone. However, the native violets and clovers will attract pollinators.

Another benefit of not applying fertilizer is that the lawn does not grow as fast, needing less frequent mowing. I cut the lawn at a height of about three inches which allow the clover blossoms and violets to remain. I manually dig out most of the dandelions early spring after my grand daughters picked numerous bouquets of the golden blossoms.

Our yard has many non-native plants, but we are gradually adding numerous native plants to our gardens helping to convert our yard into more of a conservation corridor to support wildlife habitats and pollinators. The long-term plan is to create more native beds and to reduce the lawn area. Small changes over time are easier to accomplish.

Having grandchildren play on his lawn made Board Member Tim Mack think twice about applying fertilizer and pesticides. Photo by: Tim Mack

Now, every spring we wander the garden center looking for native plants instead of multiple bags of turf-builder. Since we have changed our practice of lawncare, we have noticed more bees, butterflies, birds, and even fireflies on summer evenings since we stopped using pesticides. This paradigm shift in managing our property has been enlightening and fulfilling as we contribute to pollinator conservation and a much healthier landscape.

Eco-friendly Lawn Tips

Avoid pesticides. The National Audubon Society estimates that approximately 7 million birds are killed yearly by lawn chemicals.

Consider using an electric mower. They've improved greatly in recent years. Fossil fuel-powered appliances are not regulated and produce high amounts of particulate emissions. A gas powered leaf blower, for instance, produces as much emissions in ½ hour as a car driving from Texas to Alaska.

Don't mow your grass short. 3-4" in length will help your lawn retain water, so you can water less often.

Leave grass clippings on the lawn. Don't bag them. They provide nutrients that help your grass stay healthy without chemical fertilizers.

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Helping Bees with Your Camera

- By Tracy Zarillo, HLCT Board Member

Tracy is an Entomologist with the CT Agricultural Experiment Station. She has expertise in native bee taxonomy, native bee monitoring and survey techniques, and pollinator conservation.

It's springtime in Connecticut and everything is waking up, including our native bees! Our earliest bees, those in the cellophane group, begin to emerge from their nests in early March. You might start to notice dime sized holes in the bare ground in your yard, and if you look closely, you might even see a tiny heart-shaped bee head peeking out In late March and April. Bumble bee queens, miner bees, and mason bees begin to show up on spring blooming herbaceous plants, shrubs, and trees. It is a great time to get out and begin to document who is in your yard by way of photo observations!

There is a wonderful crowdsourced species identification website called iNaturalist (www.iNaturalist.org), which serves as an occurrence recording tool for living organisms. You can upload your photos of living things and experts will help identify them. As of March 12, there were over 15K observations of bees in Connecticut! Impressively, 110 of the 382 bee species reported for Connecticut were able to be identified through photos. Over 1,500 people from Connecticut have contributed observations of bees, and perhaps you are one of them. If not, please give it a try and contribute to the biodiversity data about the bees that live in our yards, gardens, and neighborhoods.

Unequal Cellophane Bee, Colletes inaequalis, female; usually the first bee species to emerge in Connecticut; active March through June; Known to use pollen and/or nectar from Willow, Maple, Serviceberry, Blueberry, fruit trees, Viburnum, Dogwood, Lupines, and Redbud. Photo by: Ray G. Cama, www.inaturalist.org/observations/153401318

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