

The Habitat

A newsletter of the Connecticut Association of Conservation & Inland Wetlands Commissions, Inc.

Summer 2024
volume 36 number 2



Registration Is Now Open for Our 2024 Annual Meeting & Environmental Conference!

The CACIWC Board of Directors is pleased to announce that registration forms have now been posted on our website for our **2024 Annual Meeting & Environmental Conference**, scheduled for Saturday, November 16, 2024. We will be returning to the **Bristol Event Center** for this special conference, which will help us celebrate the **50th Anniversary of CACIWC**.

Our keynote speakers, retired Judge Marshall Berger, Jr., State Representative Mary Mushinsky, and Director of the Connecticut Agriculture Experiment Station, Jason White, PhD, will review the decades of progress in environmental regulation,

conservation, and habitat protection and help us prepare for future efforts impacted by climate change and other challenges.

Many informative workshops have been scheduled for this conference that will provide the latest updates on important topics, such as: *Hydilla* and other invasive aquatic plants, preserving vegetative buffer zones, challenging wetlands law issues, improving climate resiliency in rural areas, vernal pool mapping, light pollution impact on wildlife, and conducting natural resource inventories.

Please see our website for additional information: www.caciwc.org. 🍁



Marshall K. Berger, Jr., CT Superior Court Judge, (retired)



Mary M. Mushinsky, CT State Representative & Deputy Speaker



Jason C. White, PhD., Director, Connecticut Agriculture Experiment Station

Sharing the Landscape with Amphibians and Reptiles (Part I)

by Hank Gruner, Herpetologist, Member Andover Conservation Commission
and Dennis Quinn, Herpetologist, Owner, Quinn Ecological, LLC

In the summer of 2023, Northeast Partners in Amphibian and Reptile Conservation (NEPARC) hosted its annual meeting at Wesleyan University in Middletown, Connecticut. CACIWC, along with several other organizations from throughout the Northeast assisted in sponsoring the meeting. In addition to scientists, state agencies, members of

various conservation organizations, and students, the meeting was attended by representatives from several town conservation commissions. The theme of the three-day session, “sharing the landscape,” summed up what is arguably the greatest conservation challenge facing our native amphibians and reptiles – people and wildlife coexisting in

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CACIWC News

As we continue to reflect on the many changes in conservation and environmental protection which had occurred during the five decades since the formation of CACIWC in 1974, we looked for ways to acknowledge these improvements while organizing our **2024 Annual Meeting and Environmental Conference**. As mentioned on the cover story of this issue, we have recruited three special keynote speakers who are able to review the many decades of progress in environmental law and legislation along with conservation and habitat protection as we all prepare for future efforts impacted by climate change and other challenges.

While much progress has been made in reducing air and water protection, protecting wetlands and habitat protection during these past five decades, many safeguards are under threat nationally and even in environmentally conscious states, such as Connecticut. We must remain vigilant to maintain these important safeguards as we prepare for future challenges!

In other news:

1. Although expenses for our conference and publication continue to grow, the Board of Directors decided not to increase our **CACIWC membership dues for our 2024-25 fiscal year** to help limit *your* yearly expenses. In addition to the growing total expenses of our annual conference, conference facilities are now requiring an increasing percentage of their venue costs to be *prepaid well in advance of the event*. Therefore, it is even more important now **that you renew your CACIWC membership as soon as possible so that we can cover these early venue payments**. Please renew your membership using the online and mail membership renewal forms located on our website: www.caciwc.org. Your renewed membership will provide you with an even greater discount on the annual conference registration fee this year! Members will also be able to attend our mid-year training programs being scheduled later this fiscal year.

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Reducing Light Pollution in Connecticut

By Leo Smith

Connecticut boasts a rich history, picturesque and biodiverse landscapes, and vibrant city and town centers. However, rapid development, energy incentives and the increasing use of more and brighter artificial light at night have given rise to a new and concerning issue across our state: light pollution and its many adverse consequences. Awareness is growing about the detrimental impacts of excessive night-time artificial illumination on human health, wildlife, and the environment, together with significant costs associated with outdoor lighting. More municipalities in Connecticut are looking for ways to combat light pollution. In this article, we will explore formulating effective light pollution control policies and the steps towards creating a more sustainable and safer nocturnal environment for Connecticut residents as well as for wildlife and plant life.

As a first principle, outdoor lighting should only be used where, when and in the minimum amount needed. Light pollution refers to “excessive, misdirected, or poorly designed artificial lighting” that disrupts natural darkness and obscures celestial views. Light pollution adversely affects human sleep patterns, and circadian rhythms, damages ecosystems, disorients species like insects, bats, and migratory birds, and wastes energy. Recognizing these negative consequences, some municipalities in Connecticut have developed regulations to control light pollution.

At the same time, affordable solutions are widely available. Technologies that help reduce light pollution include motion sensors, timers, lighting fixture shields, and warm-tinted LEDs.

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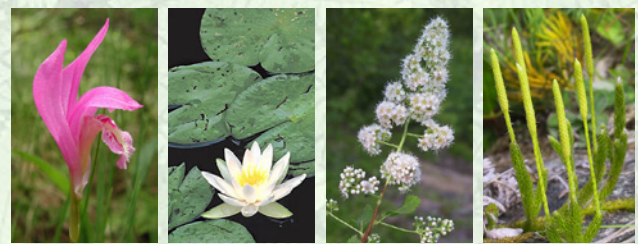
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WANTED: Dead and Alive

By Margery Winters

Next time you go for a walk in the woods, look down. How many rotting logs do you see lying on the forest floor? How many standing dead and dying trees? How large are they?



Figure 1. Living tree in McLean Game Refuge in Granby.
Photo by Margery Winters.

How long have they been there? The answers to these questions provide clues to the ecological health of that forest.

"The real jewel of my disease-ridden woodlot is the prothonotary warbler ... The flash of his gold-and-blue plumage amid the dank decay of the June woods is in itself proof that dead trees are transmuted into living animals, and vice versa." Aldo Leopold

Although it may seem contradictory, a forest with abundant deadwood is a healthy and biologically diverse forest. There

is actually more life in dead and dying trees than in living trees. And the more standing and fallen deadwood, the better.

From a board-foot timber perspective, the economic value of a tree ends with a tree's maturity. Ecologically, however, with a tree's senescence, death, and decay, its value to the forest and local wildlife increases substantially.

How a tree dies, and its size at death, influences its value to wildlife. A tree that loses a limb during an ice storm, or neighboring treefall (see Figure 1), suffers damage to its protective sapwood, allowing fungi into the heartwood of the tree. These heartwood-rotting fungi will, over time, rot the center of the tree eventually creating cavities that become home to a host of wildlife. When these trees fall they become hollow logs. The larger the cavity, the larger the wildlife using them for nesting, shelter, and protection from predators. In contrast, trees that fall while still alive,

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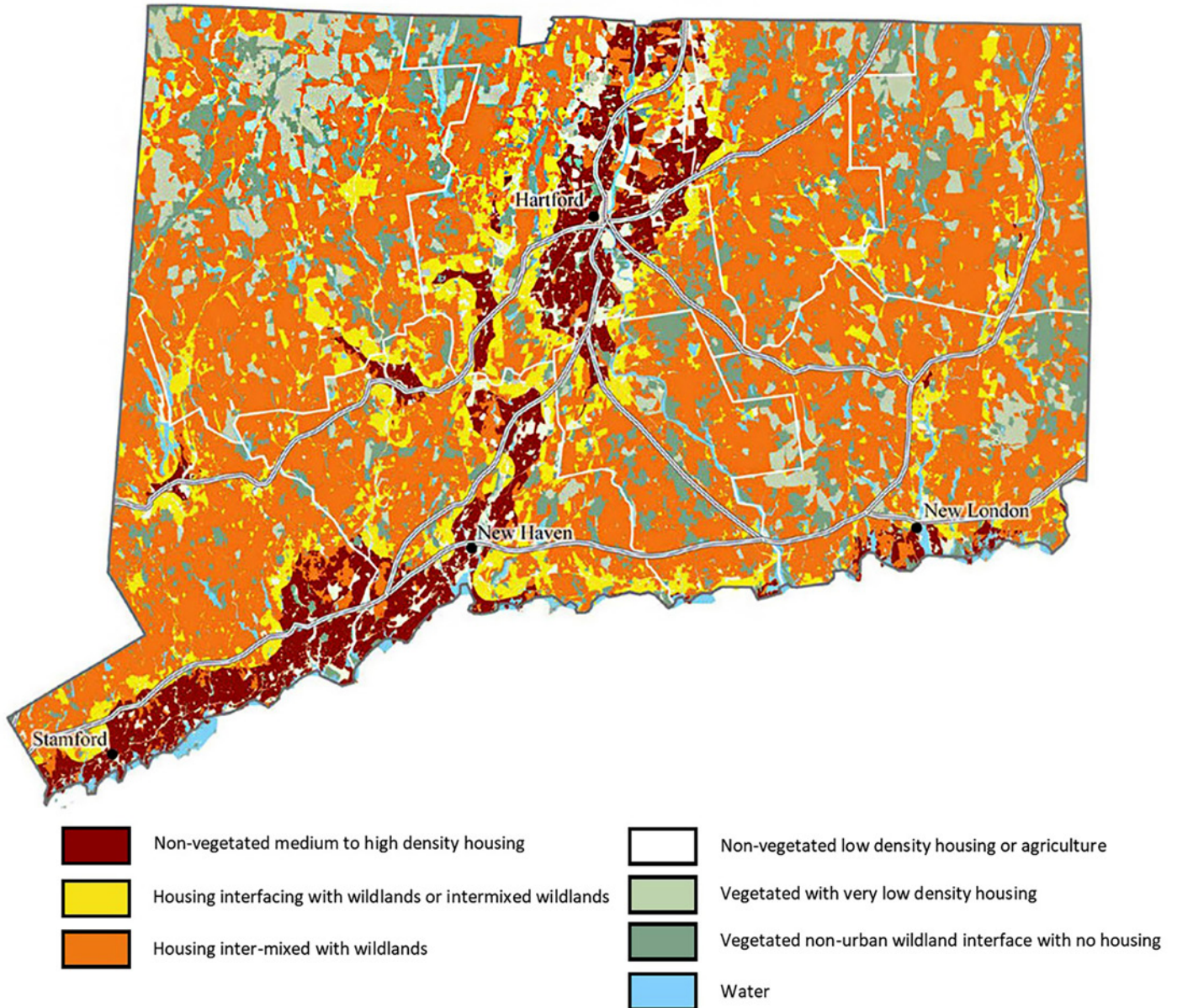


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an increasingly urban-suburban landscape. This challenge has gained in relevance as the State, municipalities, and wildlife populations will all need to respond to the effects of climate change. Many

consisting of housing located adjacent to wildlands - as noted by the orange and yellow areas on the map in Figure 1. Within these areas, people exert an influence on natural ecosystems, and coexistence, does not necessarily imply benign coexistence.



of these responses will be interwoven with land use practice, and there lies the opportunity to revisit what coexistence means, and plan for a healthier, sustainable landscape for people and wildlife.

Coexistence in nature refers to living in the same communities at the same time. Fifty-five percent of Connecticut's landscape consists of an inter-mix of housing and wildland, with an additional 11%

For some species like the timber rattlesnake or black bear, sharing the landscape poses unique conservation and public relations challenges owing to perceived or real threats associated with their presence. Others, sometimes referred to as "nuisance" species, create management challenges when their natural behaviors conflict with landowners. For example, beaver blocking culverts resulting in flooded yards

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and roads, or the accumulation of droppings from flocks of Canada geese on golf courses.

For most species, however, a balance of coexistence is assumed by the public... *Are not there plenty of forests and wetlands remaining? Wasn't most of the land cleared of forests at one time, and yet we still have abundant wildlife? Doesn't the state environmental protection agency and numerous private organizations protect species and their habitats? Aren't there local conservation and/or wetland commissions in place in all towns to advocate for and protect important habitat?* The answer to these queries of course, is yes, it is the perception of benign coexistence that is misplaced. Are we in fact, adequately balancing the needs of wildlife and ecosystem health with that of other needs (i.e. residential/commercial development, energy infrastructure, flood control, etc.) in our land use planning and practice?

Not all species are equally vulnerable to land use practices or changing environmental conditions. Unlike most birds and mammals, physiological constraints greatly limit the ability of many amphibians and reptiles to redistribute their populations across the landscape in response to disturbance. Lack of mobility, a behavioral need to thermoregulate (maintain their body temperature

within a certain range even when the surrounding temperature varies), and in the case of amphibians – permeable skin that is susceptible to desiccation and environmental contaminants, all contribute to the vulnerability of amphibians and reptiles. As populations become isolated due to habitat loss and fragmentation, reduced genetic diversity adds to their vulnerability, increasing the probability of local extirpations.

Connecticut's native herpetofauna includes forty-six species, twenty-three amphibians and an equal number of reptiles. When we analyzed species distribution for our recent publication: *Conservation of Amphibians and Reptiles in Connecticut* (Klemens et al 2021), we found that 41% (19 species) were relatively common and widespread in occurrence,

with 59% (27 species) being relatively uncommon or restricted in distribution. Compared with the common and widespread species, those that were uncommon or restricted in distribution generally were associated with two or more of the following traits: (1) a dependence on a rare habitat type, (2) a dependence on early successional habitat stages, (3) a dependence on a mosaic of different habitat types, and for certain reptiles, (4) a reproductive ecology characterized by delayed sexual maturity and

low fecundity that requires high adult survivorship for population stability. These traits underlie the

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Figure 2. Populations of wood turtles, *Glyptemys insculpta* center around moderately flowing rivers and streams with well-defined floodplains. Turtles over-winter and mate within the river, however, depending upon their age and gender, individuals can disperse more than 1,000 feet, away from the river to utilize adjacent floodplain, and open and forested upland habitats for thermoregulating, feeding, and nesting. The need to disperse among multiple habitats to meet different biological needs renders populations vulnerable to both aquatic and/or terrestrial habitat alterations or loss. Over-land movements expose turtles to many threats, and as long-lived reptiles with delayed sexual maturity, the loss of even small numbers of individuals is enough to send populations into a long-term decline.

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conservation challenges facing many of Connecticut's native amphibians and reptiles (see Figure 2).

Connecticut's herpetological community is changing. While "generalist" species (e.g. green frog, garter snake, etc.), appear secure, many of those associated with the traits outlined above are experiencing long-term declines. At the same time, we are witnessing an increase in overall diversity due to introductions of non-native species. Over the past twenty-five years, three non-native reptiles have established breeding populations, with one, the red-eared slider, significantly expanding its' distribution throughout the state. These include two turtles, the red-eared slider and spiny softshell, and the Italian wall lizard (see Figure 3). Warming winter temperatures and a robust pet trade increase the probability that additional introduced non-native species will be able to successfully establish populations, and/or spread their ranges within Connecticut in the future. The impact of these introductions on native populations is not known, and hopefully this increase in diversity will not be off-set by the loss of native species, which in some cases is a real possibility.

Historically, populations of our native amphibians and reptiles have successfully responded to significant landscape change. Our native species colonized the state from refugia well to the south or west as the last of the glaciers receded and the formation of river systems, wetlands, and the re-forestation of the land gradually took place. These same species persisted through a period in the 1800s when Connecticut was nearly cleared of forest. During

this period, populations of forest-dependent species, such as, the spotted salamander or the eastern rat snake, likely experienced declines in abundance and retractions in distribution, while species dependent upon open habitats, such as, the smooth green snake or northern leopard frog, likely increased in abundance and expanded their distributions. As Connecticut gradually re-forested over the years, this trend reversed, however, the landscape again changed in a dramatic way.

Post WWII, Connecticut's landscape has become significantly developed and fragmented, with growth in residential (primarily suburban), commercial, and industrial development, and the expansion of a highway system and vast network of roads. Prior to this, amphibians and reptiles were able to respond to change, in essence, because they were able to move across the landscape. Local populations could shift to nearby suitable habitat in response to alterations of their current habitat, and if populations were extirpated or declined in abundance, they could be re-colonized or increase in abundance once the habitat again became suitable. Natural landscape population dynamics

in action. The modern landscape, not unlike different levels within a video game, presents many barriers and threats that deter the ability of populations to persevere as they attempt to adjust to changing conditions. As suitable habitats become increasingly disconnected across the landscape and populations shrink, population dynamics breakdown.



Figure 3. The Italian wall lizard, *Podarcis siculus* has recently established sustainable populations in southwestern Connecticut. Populations have been documented along the Metro-North railroad corridor, and it is believed that this was the route of introduction from sources previously introduced in the New York metropolitan area. How far wall lizards will spread within the state remains to be seen.

Although this may seem to be an over-simplification of the conservation challenge facing am-

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phibians and reptiles, and indeed there are other threats, including, disease, illegal collection, etc., the majority of these are amplified in developed and fragmented landscapes. Natural systems are dynamic by nature, but, direct and indirect anthropogenic disturbances have been, and are, increasingly acting on populations. Long-term persistence of many populations will likely depend upon their ability to navigate the changing landscape.

This is not to say that some species and populations are not adapting to various anthropogenic disturbances. In fact, we believe that in concert with more strategic land use planning, understanding these adaptive responses is necessary for mitigating potential negative impacts on populations of amphibians and reptiles that are already embedded within a highly developed and fragmented landscape. In part two of this “sharing the landscape,” series we will discuss this in greater detail, highlighting the importance of municipal commissions in addressing what coexistence means, and why the need for commu-

nities to respond to climate change presents opportunities for biodiversity conservation. We will also outline approaches for strategically moving forward with natural resource inventories and mapping, and land use planning that considers the conservation of amphibians and reptiles.

References Cited:

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Martinuzzi, S., S. I. Stewart, D.P. Helmers, M.H. Mockrin, R.B. Hammer, and V.C. Radeloff. 2015. *The 2012 Wildland-Urban Interface of the Conterminous United States*. United States Department of Agriculture, Forest Service, Northern Research Station. 🍁



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2. During this past year, the CACIWC Board of Directors and its Annual Meeting Committee have reviewed the many comments and suggestions submitted as part of our 2023 conference evaluation. In response to these suggestions, we have selected speakers for our **47th Annual Meeting and Environmental Conference**, scheduled on **Saturday, November 16, 2024**. We are pleased to be able to return to the **Bristol Event Center (BEC)** for this special conference to celebrate our 50th Anniversary. Watch our website for the additional detailed conference news at www.caciwc.org. Please do not hesitate to contact us with any questions about our conference at AnnualMtg@caciwc.org.

3. **Improved membership communication** is an important goal of our strategic plan. Our Membership Coordinator & Database Manager Janice Fournier extends her thanks to all of you who provided us with their **updated email addresses as part of their 2024-25 membership renewals**. Please be certain to also provide us with updated emails and other contact information during the conference registration process

to help Janice maintain an up-to-date membership list. These updated emails and other contact information will also help us develop a new and expanded **CACIWC Listserve**.

4. To help celebrate the 50th Anniversary of CACIWC and *The Habitat*, we are again requesting **stories and photos of the early years of habitat protection by both the inland wetlands and conservation commissions in your town**. Let us know if we can highlight your town's many decades of service with photos and stories by contacting us at board@caciwc.org.

All of us on the CACIWC Board of Directors continue to thank you and your fellow commissioners and staff for your local efforts and your ongoing support. We hope that you will help us celebrate our 50th anniversary by joining us at our 2024 Annual Meeting and Environmental Conference on Saturday, November 16, 2024!

Thank you,
Alan J. Siniscalchi, President
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The Connecticut State Building Code has a Light Pollution Control amendment that requires all new commercial construction and major retrofits to use fully shielded outdoor lights. A law was also passed in 2023 requiring all state-owned buildings to extinguish their outdoor lighting from 11 PM until 6 AM. The main rationale was to benefit migratory birds, but reducing light pollution also benefits the entire ecosystem and human health, while at the same time reducing energy consumption.

In an effort to reduce light pollution, DarkSky International and the Illuminating Engineering Society of North America collaborated in publishing the 5 Principles for Responsible Outdoor Lighting, available online at <https://darksky.org/resources/guides-and-how-tos/lighting-principles/>.

The DesignLights Consortium has also developed the **Seven Strategies to Minimize Negative Impacts of Outdoor Light at Night**, available online at <https://www.designlights.org/resources/reports/seven-strategies-to-minimize-negative-impacts-of-outdoor-light-at-night/>

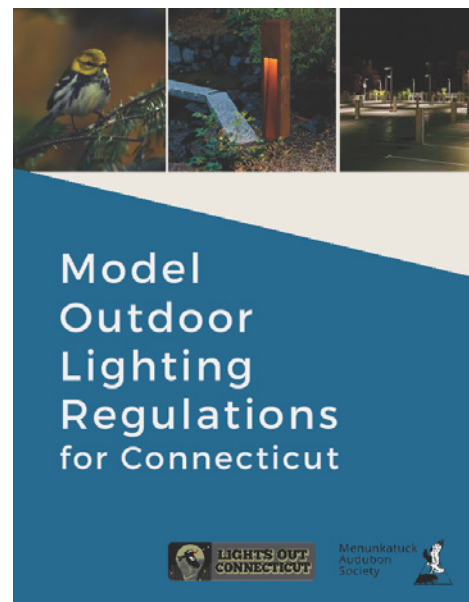
As the negative impacts of light pollution become more fully understood, municipalities can collaborate with stakeholders, such as local government agencies, developers, businesses, and community groups, to evaluate existing lighting practices in their towns or cities, identify areas for improvement, and develop comprehensive policies for light-pollution control. Public education plays a key role as well.

Effective policies will promote sustainable outdoor lighting practices which will reduce light pollution and light trespass, while maintaining safety and security. Municipalities can require the use of motion sensors and timers and require shielded fixtures that direct light downward to illuminate specific areas rather than dispersing it in all directions at all hours of the night. By adopting regulations to require energy-efficient technologies like LED lights at the lowest Kelvin rating possible and implementing smart lighting controls such as motion-activated lighting, municipalities can significantly reduce light

pollution and light trespass while also protecting the community. Lower energy costs and a reduction of our carbon footprint are additional benefits from reducing light pollution.

Effective enforcement can be as simple as requiring that any building permit application is accompanied by a detailed lighting plan that shows all specifications for proposed outdoor lighting fixtures, and their cutoff classification, lumen output and correlated color temperature. Before issuing a certificate of occupancy, building inspections should first confirm that compliant outdoor lighting fixtures were used.

In 2024 a Model Outdoor Lighting Regulations for Connecticut was published by Lights Out Connecticut. The document is intended to serve as a template for municipalities interested in developing outdoor lighting regulations. The document is free and available online at <https://www.lightsoutct.org/model-municipal-lighting-policy-for-connecticut>.



Municipalities can evaluate existing outdoor lighting practices, identify areas for improvement, and develop comprehensive regulations for light pollution control. In particular, the issue of light pollution is gaining importance with conservation groups, including local land trusts, Audubon centers, pollinator pathway groups, and garden clubs which all advocate on behalf of bird, pollinator, and fish populations. Connecticut also benefits from efforts to reduce light

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pollution by diverse statewide nonprofit organizations, such as Sierra Club and the Connecticut Audubon. These groups are important collaborators and public awareness campaigners in developing local policies to reduce light pollution.

In early July, a new Coalition to Reduce Light Pollution in Connecticut was formed, with 14 member organizations joining in the first 30 days. The Coalition website is at www.reducecp.org. CACIWC members are welcome to join as Coalition members – there is no fee associated with joining - www.reducecp.org/join.



As efforts to minimize the harm caused by light pollution moves forward, there is an important role to be played by municipalities in creating a future where our nights are not only safer and more beautiful for people but also where are our birds and other nocturnal creatures are able to use darkness for navigation and safety. A vision for Connecticut's future is one where the night sky is filled with the enchantment of natural darkness.

A Note about the Author

Leo Smith is Chair of the Connecticut Chapter of DarkSky International. For 7 years he was a voting member of the national Model Outdoor Lighting Task Force jointly sponsored by the Illuminating Engineering Society and DarkSky. He has received the President's Award from the IES and the Lifetime Achievement Award from DarkSky International.

Resources:

DarkSky Connecticut Chapter – Chapter Chair
Leo Smith – leo@smith.net
Facebook at <https://www.facebook.com/profile.php?id=61550915213597&mibextid=LQQJ4d>

Light Out Connecticut – Chapter Co-Chair – Craig Repasz – info@lightsoutct.org
Website at <https://www.lightsoutct.org/>

DarkSky International – www.darksky.org

Sustainable CT on Promoting Dark Skies
https://sustainablect.org/fileadmin/Random_PDF_Files/Archived_Actions/2022_Actions/3.13_Promote_Dark_Skies.pdf

DarkSky Connecticut - 10 Point Checklist for Outdoor Lighting <https://www.facebook.com/photo/?fbid=122119771934030507&set=a.122105635976030507> 🍁

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or are girdled in an attempt to make habitat trees (snags), rot from the outside in. Their heartwood remains intact, but the once live sapwood can no longer protect itself from sapwood-rotting fungi. When these trees fall they do not become hollow logs but, as they decompose, provide moist, fertile nursery areas for germinating seeds, mosses, and other fungi as well as valuable organic material that feeds the forest soil food web (see Figure 2). This is a long-term source of nutrients: if in contact with moist soil, it may take 15 to 20 years for a log to completely rot. Their presence near stream banks help stabilize forest slopes, reduce erosion, and slow runoff.



Figure 2. Fungi & moss on fallen tree. Photo by Margery Winters.

Wood decaying (saprophytic) fungi are the dominant agents of decomposition in the recycling of a tree's nutrient legacy. A close-up examination of rotting logs reveals the two groups of fungal actors responsible for this process – white rot and brown rot fungi. White rot fungi feed primarily on deciduous (angiosperm) wood consuming the hard to digest lignin, leaving behind wood cellulose. These rotting logs appear light in color, spongy, and are often wet to the touch. These rotting logs absorb water and provide a perfect micro-habitat for moisture-loving species like salamanders, one of the

most common and important denizens of the forest floor. Brown-rot fungi on the other hand, decompose the cellulose and modify the lignin in fallen coniferous trees. Brown-rot decomposing logs have a reddish-brown, cubic, or blocky appearance and contribute substantial carbon to the forest duff, the layer of partly decaying organic material on the forest floor (see Figures 3 & 4). Introduction of the fungal spores into the deadwood is facilitated by insects such as bark boring beetles, and carpenter ants. Trees killed by bark boring beetles have significantly greater insect diversity than girdled trees and add to the biological diversity of the forest. Bark beetles emit pheromones that not only attract other bark beetles but also insects that prey on bark beetles. Woodpeckers are attracted to these trees and create cavities for themselves and other insectivorous cavity-nesting songbirds that play an important role in the regulation of forest insect populations (see Figure 5).



Figures 3 & 4. Returning to the soil, brown rot. Photos by Margery Winters.

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As deadwood softens and rots, carpenter ants and carpenter bees move in, removing yet more wood to create their tunnels and nests. In doing so they speed the process of returning the tree's nutrients to the soil. Carpenter bees are key pollinators and carpenter ants, the most common forest invertebrate, serve as major predators of herbivory insects such as spongy moths and tent caterpillars, thereby improving the health of the living trees. The ants in




Figure 5. Pileated Woodpecker holes. Photo by Margery Winters.

turn are a valuable food source for wildlife such as songbirds and woodpeckers as well as larger animals such as bears and skunks. In fact, deadwood is a virtual smorgasbord of sowbugs, millipeds, spiders, slugs and other detritivores that feed a host of wild creatures.

Management of forests to supply society's timber needs and the stewardship of the ecological health of forests for wildlife have some challengingly conflicting goals. Modern forestry encourages leaving existing snags or creating new snags by girdling, as well as leaving substantial slash material on the ground after a timber harvest. Nonetheless, a large portion of a tree's legacy nutrients are removed in the harvested bole (trunk) of the tree. It is as yet


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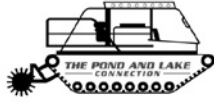
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uncertain how many times this removal can occur before affecting the long-term health of forest soils. In our managed forests, few trees are left to grow large, reach full maturity, old age, senescence, and decay so as to develop the large cavities needed by wildlife and the biological diversity that accompanies this aging and decay. Deadwood in managed forests may represent less than a third of that found in unmanaged forests as very few large logs are left on the forest floor to decay in place. As a result, the necessary management of some forests for timber harvest can never fully replicate the natural forest systems. For that, some forested areas must remain unharvested, allowing forests to regenerate of their own accord, a process known as “proforestation.”

The private landowners and towns who are responsible for the stewardship of the majority of Connecticut’s forests would benefit from recognizing the important role of senescence, death, and decay in the ecological health of their forests and its associated wildlife.

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Notes on the Author:

The author Margery Winters presented a workshop on morticulture during our 2023 Annual Meeting and Environmental Conference. She is the Assistant Director and instructor at Roaring Brook Nature Center in Canton where she is delighted to be able to share her passion for earth science and nature with students of all ages. She manages the Nature Center’s native plant gardens and is an advocate for the role of natives in our designed landscapes. She is also a Master Landscape Design Consultant and has completed the Connecticut Master Woodland Manager program. In addition, Margery serves on several land use boards in Simsbury. She is chairman of their Inland Wetland & Conservation Commission, a member the Open Space Committee, and serves as president of the Simsbury Land Trust. 🌿



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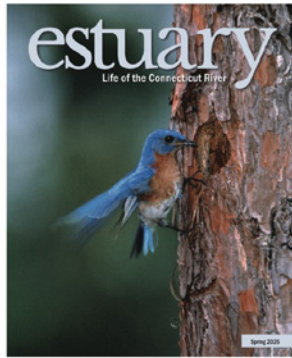
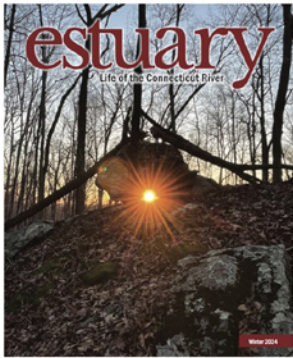
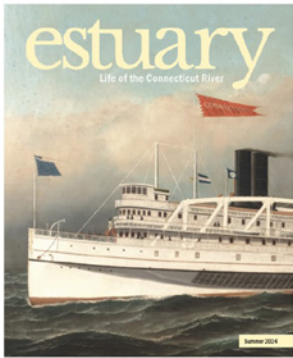
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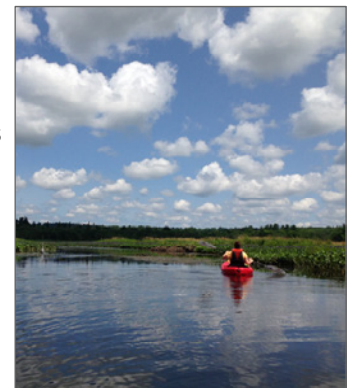
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The Connecticut Invasive Plant Working Group (CIPWG) 2024 symposium, entitled *Real Talk: Making an Impact in Invasive Plant Management* has been scheduled on Tuesday, October 29, 2024. The symposium will be held in person at the UConn Student Union, 2110 Hillside Road Storrs, CT, 06269 and is open to all.

The morning session will include a keynote presentations by Peter Picone, of the State of Connecticut Department of Energy and Environmental Protection (DEEP) who will present on *“For the Love of Plants...To Plant or Not to Plant? A Wildlife Biologist’s Perspective.”* A panel presentation on *“CIPWG’s Role in Combatting Invasive Plants”* will also be provided by Victoria Wallace and Lauren Kurtz from UConn, and Bryan Connolly, of Eastern Connecticut State University (ECSU).

The afternoon sessions will include topics as: *Case Studies in Managing Tree of Heaven and Mugwort, Leveraging Community Engagement, Pollinator Meadows at Robbins Swamp Wildlife Management Area Help Support Native Wild Bees and Monarchs, Aquatic Invasive Plant Management and Prevention.* Two panel discussions will also be scheduled: *Common Questions about Invasive Plant Management and Native Plant Availability.*

Note that CEU’s for organizations and Pesticide Recertification Credits are also available.

Please note that the Early Registration fee of \$75 is available through Sept. 20. Regular Registration is \$85 and Students can register for \$35. More information is available at: cipwg.uconn.edu/2024-symposium. 🍂