



Investing in the Land
page 4

"State of the Waters"
page 5

Landscaping for Birds
page 10

■ **ON THE COVER:**
Outdoor Learning
page 3



Learning on and from the Land



Look for our new pop-up walks! **Walks & Talks**, page 7

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On the cover: An oak leafs out in early spring at Three Ponds Conservation Area. Photo © Hardie Truesdale. Inset: A young student explores Boland Pond.

Annual Plant Sale

Saturday, June 10, from 10:00 am to noon, OCT will again host a plant sale at our headquarters at 203 South Orleans

Road. Many are pollinator plants grown and generously provided by Lake Farm Gardens of Orleans. Proceeds benefit the Trust; the plants benefit our local ecosystems.



Dear OCT members and supporters,

Congratulations to the Town of Orleans! After decades of planning, consensus building, engineering, design, funding, construction, and commissioning, the Phase 1 Downtown Area Sewer System and Wastewater Treatment Facility are in operation. It is an honor for me to chair the Orleans Wastewater Management Advisory Committee as well as to serve OCT. In fact, preserving land and cleaning up our waters are closely linked. (Read Andrew Gottlieb on the “State of the Waters,” page 5). As we advance to the next phase of the wastewater management plan, we’re learning that parts of town with significant protected land probably will not require investment in sewer or alternative infrastructure. A great example is OCT’s Portanimitcut Greenbelt in South Orleans. Limiting development and septic system load by protecting land is a sound investment in the future health of Pleasant Bay and other waterbodies.

Speaking of learning and future generations, OCT’s Education Committee has kicked off a grant program to enhance environmental education opportunities for students at Orleans Elementary and Nauset Regional Middle schools—at nearby Boland Pond and around town. (See page 3.) I am amazed at the diversity of projects proposed and excited to follow each and every one of them.

Learning isn’t just for the young: OCT is teaming with educators and other groups to help Orleans residents welcome more nature on our own properties. Native plant and bird expert Claudia Thompson was recently featured in our lecture series, and you can find pointers from her on “Landscaping for Bird Diversity” in this issue. We’re also training volunteers to serve as stewards of OCT properties; see the profile on page 8 of one stalwart, Chuck Dow. And over the coming months,

we’ll transform some of the lawn around OCT’s headquarters into a demonstration garden with natives and other sustainable landscape features.



The great work of the Trust is possible because of the hard work of staff and trustees, current and past. I want to remember a former trustee and longtime supporter, Peter Deeks, whose sound financial wisdom helped steer OCT’s investments through waters both smooth and rough. Sail on, my friend!

I know I speak for all trustees and staff, who love what we do to advance the Trust’s mission for all of Orleans. Please save the date (August 28) for our Annual Meeting at the Orleans Yacht Club, when we’ll share more news and welcome the chance to thank our wonderful members in person.

Sincerely,

Kevin F. Galligan
President



Remember to Renew!

Your membership dues are vital to our land-saving work, which benefits the whole community. Please look out for our spring mailing, and help the Trust AND your neighbors by renewing your membership. And mark your calendar for the **OCT Annual Meeting on Monday, August 28, 5:00 pm at the Orleans Yacht Club.**

Bringing Outdoor Learning to Orleans Students

Restored Trail, Pondsides Classrooms, and OCT Grants Will Serve Teachers and Kids

A cornerstone of OCT's new five-year plan is doing more to meet the needs of Orleans youth and families. As a start, we have refurbished a trail along Boland Pond and launched a funding program that will improve environmental education for schoolchildren.

To make it easier for teachers and students to get hands-on outdoors, OCT staff and volunteers (including some from AmeriCorps Cape Cod) re-cleared a trail near Boland Pond, adjacent to both Orleans Elementary School (OES) and Nauset Regional Middle School (NRMS). At the trailheads near each school, we created outdoor classrooms with sturdy benches installed at "kid level." OCT will maintain the trail and classrooms so that they remain accessible and safe for the students.

A First Foray

No sooner had the benches appeared than fifth-grade teacher Cirrus Farber brought her class down to the pond for a trial run. "What a wonderful resource to have for our students!" she wrote to Executive Director Steve O'Grady, in her report on the visit. Students brought clipboards to document evidence of producers, consumers, and decomposers

"What a wonderful resource to have for our students! Thank you to the Trust for spearheading this endeavor!"

*—Cirrus Farber,
fifth-grade teacher
at OES*

in the forest food chain. On their first foray into the forest, students discovered skunk nose holes where the animals foraged for grubs, mushroom tendrils growing under logs, and tiny spores sent up by mosses near the pond's edge. After sketching their findings at the new benches, they took water samples back to the classroom to look at water bugs, baby crayfish, and other pond life under a microscope. Reactions from the fifth-graders included: "I love it!" "I can't wait to go again!" and "It didn't feel like school!"

Grants Will Fund Nine School Projects

OCT also has worked with administrators and teachers at each school to design a grants program to improve



Above: Cirrus Farber's fifth-grade class enjoying the new outdoor classroom at Boland Pond. Left: OCT volunteers led by Director of Land Stewardship Alex Bates install benches at the OES classroom site.

environmental education for OES and NRMS students, with planned activities at Boland Pond and other locations around Orleans.

This March, OCT trustees approved nearly \$18,000 in grants to the schools for three projects at OES and six at NRMS. All the approved plans incorporate the renewed Boland trail. The funds will help teachers and hundreds of students work with Wampanoag elders, Mass Audubon educators, and the Center for Coastal Studies

during the current spring term and next school year. Funds also support the purchase of still, trail-based, and live-feed cameras and related equipment.

OES Principal Elaine Pender thanked the Trust for providing both the new facilities and the grants. "The outdoor learning space and funding opportunities propel our efforts to offer purposeful educational experiences that connect to students' everyday lives. By understanding their local environment, they

continued on page 10

Investing in the Land

Update on Eco-Restoration at Henson's Cove

At any given time, OCT is engaged in ecological restoration on several properties, but rare is the opportunity to make such a difference through a single project as we have at the Henson's Cove Conservation Area (HCCA).

As reported in our last issue, planning and permitting to restore a heavily degraded, nonnative woodland to a native warm-season grassland on Henson's Cove was completed in summer 2022. Last December, machinery removed decades of unchecked invasive plant growth through forestry mowing, tree and stump removal, and root-raking. An old, failing boathouse on the cove was removed in January; then the restoration area was soil-conditioned for seeding with a mix of native grasses and wildflowers. This was hydroseeded (without fertilizer in the mix) to allow for maximum germination. Several dozen native shrubs were planted in March.

Now we wait. The property will certainly green up this growing season, but it will likely look patchy (and not just the bare patches intentionally maintained for nesting terrapins). It will take a couple

of years for the herbaceous perennials to fully mature, longer for the shrubs. And despite our best efforts to root-rake the area to remove invasive plant material, some bits were undoubtedly missed, so invasives will sprout from the seedbank created by years of privet, honeysuckle, and bittersweet berries dropping to the forest floor. Invasive-species control at the site will be part of our stewardship schedule for years.

So why go to all the trouble? Was the previous forest community really that bad? Ask the experts, and you'll hear a resounding "yes!" Invasive plants do provide food (berries, seeds, and pollen in this case), cover, and nesting habitat for wildlife, but volumes of evidence suggest that native plants do a much better job providing for wildlife. Perhaps most significantly, our local insect populations depend on native plants for food; larval insects generally cannot eat plants that they didn't co-evolve with. The creatures have enzymes that break down toxins from native plants, but those enzymes take generations to develop, and they can't handle toxins in nonnative plants. In short, the degraded



Seen from the air, the HCCA property cleared of invasives and before seeding with native herbaceous plants.

woodland was akin to a desert for songbirds looking for caterpillars to feed their young.

Beyond converting the forest from invasive to native plants, we're also restoring some woodland habitat to grassland, which was much more prevalent on Cape Cod a century ago. As grasslands

steadily declined due to development and reforestation, so too did the wildlife that depends on this ecosystem—including diamondback terrapins, bobolinks, eastern meadowlarks, bobwhites, and American kestrels. We hope to see some of those species using the HCCA in the future!



Demolishing a derelict boathouse on the restored property at Henson's Cove.

State of the Waters

APCC's Latest Report Documents Continued Declines

by Andrew Gottlieb

In March, OCT members heard a presentation by Andrew Gottlieb, executive director of the Association to Preserve Cape Cod, on the findings of its annual Cape-wide study of water quality. This article summarizes some of its key findings, especially as they relate to Orleans' waterways. You can find APCC's full "State of the Waters" report at capecodwaters.org.



The number of Cape Cod's coastal embayments with unacceptable water quality continues to increase, and a third of its freshwater ponds evaluated have unacceptable water quality, while the quality of most of the Cape's public water supplies remains excellent. Those are the conclusions reached in the Association to Preserve Cape Cod's fourth annual *State of the Waters: Cape Cod Report*.

Since 2019, APCC has assessed the Cape's waterbodies and water supplies, grading water quality based on data collected by organizations, towns, and other sources. The data are translated into grades of *acceptable* or *unacceptable* for coastal embayments and freshwater ponds, and *excellent*, *good*, or *poor* for public water supplies.

Year by year, water quality in the Cape's surface waters has steadily deteriorated due to nutrient pollution, the reports have found. The largest source of nutrients



Nauset Marsh, one of Orleans' embayments with unacceptable water quality. Photo © Hardie Truesdale.

impacting embayments and ponds is inadequately treated wastewater from septic systems. Stormwater runoff and fertilizers also play a role.

Coastal Embayment Grades The number of embayments with unacceptable water quality jumped to 43 in the 2022 report. This represents 90 percent of graded embayments across Cape Cod. Pleasant Bay and the Nauset estuary were graded as unacceptable, as were all embayments on Nantucket Sound and nearly all in Buzzards Bay.

Freshwater Pond Grades The 2022 report looked at 151 ponds across the Cape that had sufficient data to enable grading. Fifty-nine ponds—or 39 percent—were graded as unacceptable. (In Orleans, Baker's, Boland, Uncle Harvey's, Shoal, Uncle Israel's, Meadow Bog, and Sarah's ponds all had unacceptable water quality.) The 151 ponds assessed represent only 17 percent of the Cape's 890 freshwater ponds, illustrating the scarcity of available data.

Water Supply Grades Referencing 2021 Consumer Confidence Reports prepared by

the public water suppliers, 16 of 20 public water supplies received a grade of *excellent* (including public water in Orleans), meaning they met all state and federal drinking water standards. Two public water supplies were graded as *good* based on the detection of total coliform bacteria, which indicates that harmful enteric bacteria such as *E. coli* may be present. (This turned out not to be the case.) Two public water supplies were graded as *poor*, with violations of two or more drinking water standards. A category of six state-regulated polyfluoroalkyl substances (PFAS) was detected in 11 of the Cape's 20 public water supplies, but only one town exceeded the state standard.

The report includes recommended actions to address the Cape's water quality concerns. One significant accomplishment in 2022 was to establish the Cape Cod Freshwater Initiative. It will enable the Cape Cod Commission and its partners to undertake a comprehensive assessment of the Cape's freshwater lakes and ponds and establish a regional plan for restoring and protecting them. To explore the grades, interactive maps, and other features of APCC's report, visit capecodwaters.org.

Tracing the Three Ponds

by **Diana Landau**

On a rare fine afternoon in March, seventeen OCT members plus a couple of trustees and staff toured the scenic ponds of South Orleans on a network of OCT trails. Our guest leader was Mon Cochran, who has walked these paths since childhood and whose family was among those responsible for conveying much of the surrounding land to the Trust.

At the *Twinings Pond* trailhead, Outreach Coordinator Abby Geisen outlined our route and introduced Mon and Eric Spengler, president of the Orleans Pond Coalition. As we strode along the level trail above the shoreline, Mon gave a tip of the hat to the Fleck family, who have long been involved in preserving land around this pond. Ten minutes in, the trail opened to a slope where OCT volunteers have been busy clearing and burning invasives (see page 9). Exiting the western branch onto Lake Drive, we regained the trail on the east side of the pond, occasional shafts of sun spotlighting a flock of goldeneye and mergansers.

Reaching the *Meadow Bog* trailhead after a stretch of pavement walking, Mon pointed out where a herring run once passed under Quanset Road just here; town efforts

to restore it haven't succeeded to date. The trail skirting this small pond goes through land donated by the Brooks family, continues up into former Cochran acreage, descends to a deep swale that once served a cranberry bog, and climbs again to a serene vantage point above *Sarah's Pond*—in past decades the site of wintertime skating parties, though it seldom freezes hard enough now. Here we got a lesson in hands-on water quality research: Eric chronicled the progress of OPC's freshwater oxygenation project aimed at suppressing the growth of cyanobacteria in the pond.

Finally, following the old "horse path" down from Sarah's, we crossed Davis Road and picked up a brand-new stretch of OCT trail that parallels the private lane but allows walkers to stay in the woods as it winds up and down through switchbacks, looping back to Quanset Road near the starting point. OCT Stewardship Director Alex Bates laid out and built this beautiful half-mile of trail last fall with the help of AmeriCorps Cape Cod crews and volunteers. At one point Mon paused to gesture toward a sheltered hollow, observing that it would have been a likely site for a Monomoyick winter camp, in a time well before his own ancestors came to Pleasant Bay.



Heading down the new stretch of trail along Davis Road.

This remoter part of South Orleans spans more than 100 acres conveyed to OCT through donation, charitable sale, or conservation restriction—a

shining example of neighbors working with the Trust to protect nature for all. Come explore its trails for yourself!



Above Sarah's Pond, Eric Spengler explains the Orleans Pond Coalition oxygenation project.

Fall 2023 Speakers

Join us for the latest in our series of **entertaining and informative** talks by **local and regional experts**. Admission free. Check OCT's website for location and more details.

The Outermost House

Don Wilding

Henry Beston's memoir *The Outermost House* inspired the creation of Cape Cod National Seashore. Historian and award-winning writer Don Wilding will share the story of Beston's year on the outer beach and the magic of this special place.



Monday, Sept. 11, 6:30pm

Marine Misfits

Krill Carson

Krill Carson, founder and president of the New England Coastal Wildlife Alliance (NECWA), will introduce us to a few of the "marine misfits" who share our local waters – including basking sharks, torpedo rays, triggerfish, and ocean sunfish.



Tuesday, Oct. 10, 6:30pm

Nibbling on Native Plants

Russ Cohen

Discover nature's bounty in your own backyard! Learn about native plant species from naturalist and wild plant enthusiast Russ Cohen, including edible species you can plant in your own yard.



Tuesday, Nov. 7, 6:30pm

Summer/Fall 2023 Walks

Get to know the **natural lands** of Orleans on our **popular guided walks**. They're **free, fun**, and open to **all ages**. Find updates and register in advance (**required**) at our website.

Mill Pond Valley

Get an up-close look at active habitat management as we make our way down to Little Mill Pond through one of OCT's crown jewel preserves.

Meet at 13 Champlain Road

Tuesday, June 6
9:30–11am



Putnam Farm

Putnam Farm, acquired by the Town of Orleans in 2010, has become a hub of small-scale agriculture. Learn about wetland restoration and the area's rich history on this short walk.

Meet at Putnam Farm, accessed by a dirt drive next to District Courthouse on Rock Harbor Road

Wednesday, July 12
9:30–11am

Portanimitic Greenbelt

Back by popular demand, walk about 1.5 miles, including a stretch on Portanimitic Road, and visit newly protected Greenbelt Gateway and Window on the Bay preserves.

Meet at 66 Portanimitic Road

Friday, August 11
2:30–4pm

Hike to Pochet Island

OCT leads this walk as part of Orleans Pond Coalition's Celebrate Our Waters weekend. Walk 5 miles, including strenuous portions over soft sand, to this hidden gem within the National Seashore.

Meet at south end of Nauset Beach parking lot

Sunday, September 17
9am–1 pm



Baker's Pond

Enjoy the fall colors on this 1.75-mile walk on adjoining conservation lands around the "great pond" that straddles Orleans and Brewster.

Meet at 80 Baker's Pond Road, Orleans

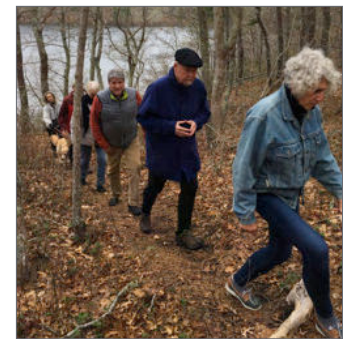
Thursday, October 12
10–11:30am

Peck Property

Short walk near the site of the last Indian meeting house in Orleans, sloping down to Arey's (Namequoit) River in a state-designated Area of Critical Environmental Concern.

Meet at the Town parking lot at the end of Peck's Way, Orleans

Monday, November 13
1:30–2:30pm



Pop-Up Walks



Watch our email blasts and social media for "pop-up" walks! These spontaneous walks will take place throughout the summer and fall on various trails in town, usually with a few days' advance notice.

Turtle Champion Chuck Dow

From taking part in monthly workdays to caring for our trails, volunteers support OCT's important work in our community. Chuck Dow, an Orleans resident since 1971, has been a dependable OCT volunteer for eight years.

Chuck moved to the Cape after graduating from UMass Amherst and began a 45-year career with Acme Laundry. After growing up outside of Boston, he appreciated that Orleans was much more rural, and he could balance working hard with having fun outdoors. He sails on Buzzard's Bay, plays golf with his twin brother weekly (unless there's snow), and enjoys the hiking trails maintained by OCT, the Town of Orleans, and Cape Cod National Seashore.

When Chuck retired in 2014, he quickly began to look for volunteer opportunities. He wanted to give back to his community and help others. Now he keeps very busy—and out of the house—with a variety of volunteer gigs around town.

From June to October, Dow helps protect diamondback terrapins at Henson's Cove Conservation Area. In partnership with Mass Audubon, volunteers spend the early summer protecting nesting sites and the later months minding turtle hatchlings. Dow usually has a terrapin shift three days a week. Working the hatching season never gets old, he says—it's always exciting to arrive at 8 a.m. and spot seven or eight tiny hatchlings running around a nest enclosure. Sometimes the only evidence of a hatch is a tiny hole in the sandy "turtle garden." Volunteers may find live hatchlings still in the nest, perhaps a few undeveloped eggs, and leftover shell pieces from hatchlings that have emerged. Data collection by volunteers is a critical step in preserving this threatened species.

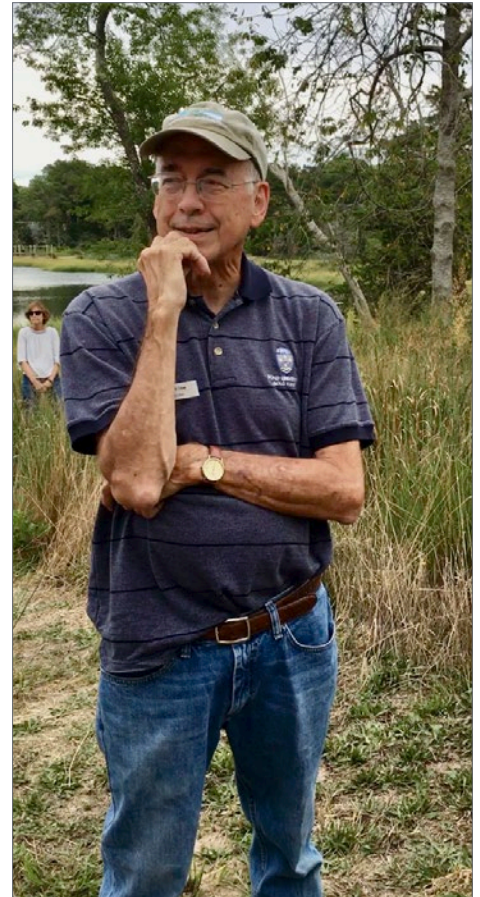
"I have a very good feeling about the land that is being conserved in Orleans that will not ever be developed."

Chuck also serves as a land steward on the Meadow Bog Trail in South Orleans. Land stewards walk OCT trails and property boundaries, keeping an eye out for encroachment and monitoring the condition of trails and the land. Maintenance needs and other reports are passed to OCT's director of land stewardship. Land stewards make one to four visits a year to their assigned property.

Chuck has also helped with controlled burns (where habitat is restored through the cutting and burning of invasives), and trail maintenance; volunteers recently have installed new steps and "bog bridges," and rerouted a portion of trail.

"I have a very good feeling about the land that is being conserved in Orleans that will not ever be developed," says Chuck. "And I have a good feeling about the conservation efforts on diamondbacks. For a long time, they were an endangered species. Now they have moved up a notch and are only 'threatened.'"

If you're thinking about volunteering for OCT but haven't taken the plunge, Chuck encourages you to try it! "Answer an email and help on one trail project, or volunteer for one shift a week with the turtles. On either job, you'll be with a trained person who will show you what to do."



Chuck Dow at the Henson's Cove terrapin gardens.

Interested? Fill out the form on the OCT website or check your email for monthly volunteer workdays. Maybe you'll bump into Chuck on the trails. We appreciate all that he and our volunteers do to help protect nature for our community!



Volunteers help "plant" baby terrapins after they hatch, in places protected from predators. Photo by Don Krohn.

Volunteers Help OCT Tackle Big Tasks

by Alex Bates

With spring in the air, perhaps you've recently walked an OCT trail and noticed some changes, as we continue efforts to make our trails more enjoyable for public use.

A big project in 2022 was rerouting our Three Ponds Trail, off Davis Road, to make it safer and more scenic. With the aid of AmeriCorps Cape Cod members, a large section of the new route was created last summer. This entailed removing downed trees, raking away debris, and grading the trail along switchbacks through steeper terrain. On two follow-up workdays, we installed locust steps at the turns along these switchbacks to mitigate erosion and make climbing easier. OCT and the private owners on Davis Road finalized an agreement last fall, and the final section of rerouted trail, near Sarah's Pond, was completed soon after.

The Mill Pond Valley Trail also has seen more improvements. A unique feature of this trail is the presence of freshwater seeps; during wetter periods, these result in standing water and muddy conditions. Several strong volunteers joined in to install over two hundred feet of "bog bridges"—six-foot sections of wooden walkway—along muddier parts of the trail.

The rugged boards are elevated, allowing water to run beneath them while keeping your feet dry.

Work at our meadow restoration site along the Twinings Pond Trail has continued into a fourth year. In March, with help from OCT volunteers and the "Woodchucks" (a National Seashore volunteer group), we spent two days cutting and piling invasive privet, bittersweet, and multiflora rose. On a follow-up workday, we safely burned an impressive amount of brush and then seeded parts of the site with a native grass and wildflower mix. Removing invasives at this site has opened up sightlines to Twinings Pond—the next time you're nearby, take a break on our bench and enjoy the view!

OCT so appreciates all the helping hands that have made this project (and all our land management work) possible!



Above: Bog bridges going in at Mill Pond Valley. Left and below: The new trail segment on the Three Ponds Trail network. Below left: Volunteers burn cleared invasives at Twinings Pond. Photo © Hardie Truesdale.



Creating Landscapes for Bird Diversity

This February, in the “freezin’ season” when we start planning our summer gardens, OCT members gathered on Zoom for a lively talk and slideshow by landscape ecologist Claudia Thompson, founder of Grow Native Massachusetts. (The program was co-sponsored by the Brewster Conservation Trust, Nauset Garden Club, and Garden Club of Brewster.) Claudia provided inspiration and encouragement for how we can help stem the decline in songbird populations with home landscapes that offer shelter and sustenance to wild birds. Especially by planting natives! This article is adapted from Claudia’s presentation. Visit her website, claudiagthompson.com

The essential principles in welcoming birds to your garden are to **create habitat** and **provide food**—especially the right kinds of food.

Native Plants: The Essential Food Source

Did you know that insects comprise more than half of the general diet of songbirds? Moreover, nestlings need to grow very fast before they fledge, and they eat *only* insects. *Natives are the primary host plants for healthy insect populations.* Nonnative plants host fewer insects, so it follows that nonnative gardens have much less



Above: Cedar waxwing eats Amelanchier berries. This tree (aka serviceberry or Juneberry) bears a favored fruit that ripens in early June. Below: White-throated sparrows are primarily ground feeders. The rich leaf litter in Claudia’s garden offers plenty of juicy grubs, providing important calories and essential nutrition. All photographs © by Claudia G. Thompson

biodiversity, including birds and butterflies. Recent research suggests that sustaining native bird populations calls for a native plant biomass (the entire plant volume of an area) of 70 percent or more.

Besides their importance to the insect world, many natives provide fruit through berries and seeds, and it’s great fun to watch the birds eat them. The fruits or seeds of certain plants will attract certain species of birds, so plant lots of variety. You can find lists online of native plants suitable for Cape Cod (see Resources). But lists are incomplete: get started and make your own observations; you will learn a lot.

Birds need water on a regular basis—for drinking but also to splash and bathe in. So if you use a birdbath or create a fancier water feature, be sure it provides perching opportunities with shallow spots and a range of depths. Change the water in a birdbath regularly, but don’t worry about keeping it pristine—a few leaves and insects can add to its usefulness.

Give Them Shelter

Leave those leaves! Leaf litter is home to a tremendous amount of life—especially arthropods (insects, spiders) and mollusks (snails). These are important food, especially for ground-feeding birds: the species most often in decline due to loss of ground-level habitat and food sources. If you leave the leaves in your yard, you’ll start to see many more birds happily feeding! Also, many butterflies, moths, native bees, and other insects depend on leaf litter for overwintering or reproduction, and your entire garden food web will function much better with its soil ecosystem intact. A bonus: Leaf litter is the best mulch you can get, and you don’t have to buy or transport it.

Outdoor Learning, continued from page 3

become local experts and stewards of their community,” she said. “Our teachers are excited to launch the unique programs OCT has generously chosen to sponsor.”

OCT Outreach Coordinator Abby Geisen, who has been closely involved in the grant program, describes the projects as “an exciting mix of activities that will help students understand how an ecosystem works as they learn about

plants, animals, and what affects an ecosystem’s health.”

The grant program adds an important new dimension to OCT’s educational work, says Steve O’Grady. “Members can look forward to the teachers and students reporting on their progress at our Annual Meeting this summer. We also plan to showcase the projects in more detail in upcoming newsletters.”

Incorporate a variety of canopy layers.

Different bird species rely on different layers or levels; to increase diversity you need tall and medium-size trees, high and low shrubs, and groundcover. The more variety the better. Tall trees are especially important to approximate a continuous woodland environment in which birds can flit from tree to tree. (Where there are no tall trees, do you see many birds?) Choose tree and woody shrub species best suited to your site and soil conditions, as well as those that host significant numbers of Lepidoptera (butterflies and moths).

Provide cover and varied topography.

Adequate “cover” for nesting and privacy is among the greatest needs of birds in urban and suburban areas. Notice that some species like dark, wooded, or secluded areas. Evergreen trees provide such cover year round, and deciduous shrub habitat is equally important. An understory of twigs and leaf litter will contain insects and seeds, while offering shelter. Windbreaks—massed plantings large enough to slow the wind—can be important for protection. The more varied and interesting the topography, the better. Embrace elevation changes, rocks, logs, nooks and crannies. Create perching spots with stones and walls.

Save snags! Dead trees are important for both food and habitat. They host insect populations and are especially loved by woodpeckers and other cavity nesters. Consider letting dead trees stand if they are away from structures. Or you can create a snag by cutting part of a tree and leaving the trunk.

Minimize Hazards

The imported house sparrow is a serious threat to native birds, reproducing prolifically, evicting other species from nests, and outcompeting them at the feeder. Prevent them from getting established: “sparrow-proof” buildings and landscape



Left: A northern waterthrush enjoys Claudia’s back garden. It floods in heavy rainfall, diversifying this habitat’s utility for a rich variety of migrating birds. Right: Northern flickers forage for insects in the bark of native trees; they also feed on the ground for ants and other insect treats.

elements to eliminate their favored nesting places, like privet hedges and bobbed yews. Monitor bird houses and remove any nesting house sparrows.

Keep pets indoors or leashed. Predation by cats is a serious threat to our native songbird populations. Free-roaming dogs also disrupt bird visitation, nesting, and feeding. Large picture windows are another direct cause of bird mortality. Learn how to mitigate their impact at <https://abcbirds.org/glass-collisions/resources/>.

Say No to pesticides. The recovery of bald eagles since DDT was banned is a great example of what happens when we

remove pesticides from the food web. But other pesticides are still legal, and some are quite dangerous. Rodenticides used to kill rats and other small mammals get passed up the food chain to owls, hawks, and other predators, killing many. Spraying pesticides kills the insects that birds depend on, and can directly harm birds that come into contact with these poisons.

Join the “dark sky” movement. Nighttime lighting adversely affects many kinds of wildlife, moths, and other insects, and certainly birds. Minimize night lighting, direct it downwards, and use warmer color temperatures (3000K and below).

Resources for Bird-Friendly Landscaping

Grow Native Massachusetts
www.grownativemass.org

A wealth of resources: books, articles, videos, and more!

Cape Cod Native Plants <https://cape-codnativeplants.org/find-plants/>

Designed to identify native plants that are best suited for specific sites, provide the most ecological benefit and complement your landscape design

Audubon’s “Plants for Birds” <https://www.audubon.org/plantsforbirds>

The bird experts provide information and a native plant database

Homegrown National Park
<https://homegrownnationalpark.org>

Initiative founded by author Doug Tallamy; aims to “catalyze a collective effort of homeowners, property owners, land managers, farmers” to plant natives and remove invasives

APCC Native Plant Initiative
<https://apcc.org/our-work/education/native-plant-initiative/>

Lists other resources and plant sources

Cornell Lab of Ornithology—All About Birds <https://www.allaboutbirds.org>

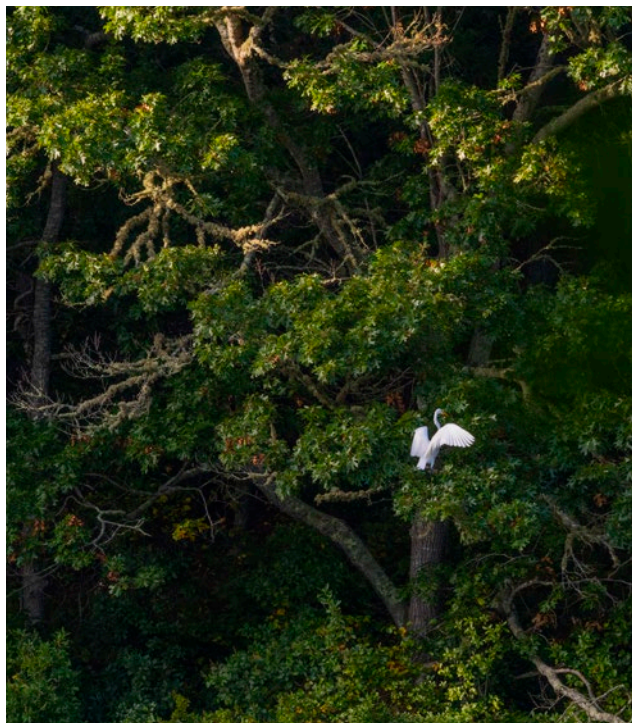
American Bird Conservancy
<https://abcbirds.org>

The best sites for learning about birds and their declining populations

Non-Profit Org.
U.S. Postage
PAID
Brockton, MA
Permit # 601

Orleans Conservation Trust

203 South Orleans Road
Orleans, MA
02653-4009



Join Our Red Oak Donors

OCT supporters who have donated for at least five consecutive years, in any amount, are designated as



“Red Oak Donors” and identified in our annual giving report by a special acorn symbol. Like the oaks that endure in our landscape and support a wide range of wildlife, being able to count on such consistent giving

helps the Trust care for the lands we steward and expand our programs for the community. We hope we can count on you every year! **Remember, the deadline for membership renewal is June 30.**

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