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It is Cooperator-generated programming that makes Coverts so special. The examples are too many to mention, but one comes quickly to mind. Barry Lawson in Peacham refers to himself as the Cooperator with the fewest trees. But he does have hedgerows, many of which were filled with White Ash. He reached out to his County Forester, Matt Langlais, a few years back. They decided to open the conversation to their community. More than 20 people attended that workshop to discuss Emerald Ash Borer, the nature and value of hedge rows - especially for habitat connectivity - and how to care for this valuable resource. This is a great illustration of Coverts in action; questions leading to gatherings, discussion, learning and better decisions on the ground.

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Spring is an exciting time. Yes, it’s sad (for me, at least) to see the snow disappear, but the returning birds, woodcock displays, amphibians on the move and emerging spring ephemerals all add to a wonderful feeling of renewal and potential. This is especially true when I think about Coverts.

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See you in the woods!
For Vermont Coverts readers, Entangled Life by Merlin Sheldrake must be looked at in context. In the past 7 years, several popular books have been published which address communication between trees and present the “forest” as a complex organism which shares information and resources between its many constituents, both arboreal and fungal.

The Hidden Life of Trees by Peter Wohlleben (2015) shows trees and forests as complicated “social beings”, communicating with each other and sharing nutrients through their roots and the fungal web that permeates the forest soil.

Then in 2017, David George Haskell wrote The Songs of Trees, tracing the way 12 trees, in different environments, communicate and demonstrate that life's meaning arises from the relationships and interdependence of all life, showing the real beauty in connectivity.

In his complex, many layered 2018 novel, The Overstory, Richard Powers presents trees as social beings and their fate as a symbol of how humanity has mishandled our relationship to the rest of nature.

Fittingly, the most recent addition to this contextual list is the autobiographical Finding the Mother Tree by Suzanne Simard (2021). In this fascinating work, Simard writes of her discoveries and struggles as she learns the ways in which trees use fungi to perceive, adapt, remember, recognize, communicate, and have agency.

There is also a pre-cursor to these works, the 2005 Mycelium Running by Paul Stamets. It is, I believe, the first work to highlight the critical importance of fungal networks in natural communication. I also recommend the 2019 documentary, “Fantastic Fungi” on Netflix.

Beautifully written, Sheldrake’s Entangled Life (2020) presents a much broader view of the fungal world than Simard’s Finding the Mother Tree, though both are journeys toward understanding this strange and ubiquitous life form. Simard concentrates on the way our forests are knit together by mycelial networks, while Sheldrake presents our entire world, and indeed ourselves, as part of this fungal network.

There is almost no place on earth you can’t find fungi, from a kilometer beneath the Antarctic ice to thermal hot springs. There are no plants that have ever been found that didn't host fungi, sometimes 100’s of varieties. Fungal spores are the single largest source of airborne particles in our atmosphere (50 gigatons every year). Fungi are more closely related to animals than to plants.

Their variety, from penicillin mold to truffles to lichen (a fungi/alga symbiont that covers an estimated 8% of the planet’s surface) to the mycelia that connect our forests beneath the soil, is endless. Sheldrake calls fungi the “ecological connective tissue by which much of the world is stitched into relation”.

While avoiding talking about “minds” or “thought”, several types of fungus (Ophiocordyceps and Entomophthora) have “learned” how to control insect behavior for their own benefit. Slime molds are able to consistently find the shortest distance between two points and have been used to accurately model real world transportation systems.

Sheldrake has written a fascinating, wide-ranging book on the fungal world. It is true that we have spent more time looking up than looking down in our forests and are only now beginning to realize what we’ve missed. He goes beyond our forest based mycelial networks and shows us how we live, and are indeed part of, a world which is a fungal network.

The plight of “the little things that run the world,” as coined by the late E.O.Wilson, has been at the forefront of the news lately, and many of us want to do our part to help native insects. We often have pollinator plants in our home gardens, but what role do our forests play in pollination?

Vermont Coverts Cooperators embrace ecological forestry; our land stewardship practices promote structural and species diversity, a healthy understory, and leaving things “messy” for wildlife. The good news is, when our forests are healthy ecosystems, they provide vital habitat for native pollinators and other insects.

As we enter mid-spring many of us eagerly await the emergence of spring ephemeral wildflowers. We scan the landscape for Dutchman’s breeches, Hepatica, spring beauty, and trout lily. Queen bumblebees (Bombus spp.), who have spent the winter hibernating under the soil or in leaf litter, begin to fly. On warm(ish) days their buzzing flight pierces the air as they search for nesting sites to begin this year’s colonies.

Old rodent holes and rotting logs are often used; the same deadwood we leave as part of our ecological management may be chosen by the bees to nest in. Dutchman’s breeches rely on those relatively large early-emerging queen bumblebees to pry open their flowers for pollination.

Other spring wildflowers have unique relationships with native bees who are pollen specialists, like the trout lily mining bee (Andrena erythronii) and the spring beauty mining bee (Andrena erigeniae). The life cycles of the specialist bees coincide with the emergence of...

By Alicia Carlson, Class of 2019 Spring Program Technician

Between 2018 and 2021, we surveyed 251 Cooperators, almost one-third of the people who have completed the Vermont Coverts Cooperator Training. In past newsletters I summarized the key findings. In this article, I will share what Coverts has been working on that addresses the suggestions made through the survey, many of which focused on our goals of keeping our community informed, engaged, and connected.

For years, in addition to the Cooperator Training, we have shared updated information with our community through Stewardship Workshops, our Woodlands for Wildlife newsletter, the annual meeting, and social events like the Addison County coffee klatches.

Then, the pandemic struck. We quickly needed to find a new way to help you stay informed and connected. We (like many other organizations) started hosting online programs and, in conjunction, we launched a YouTube channel where many of those recorded programs are available to watch any hour of any day. Our online programs have been very well attended, many beyond what we would expect for an in-person program.

One successful recurring online program is our book group that started with reading Aldo Leopold's A Sand County Almanac. We're now reading Suzanne Simard's Finding the Mother Tree and we'll soon read Bernd Heinrich's The Trees in My Forest. These sessions have been full of thoughtful discussions and are a really nice way to help Cooperators make connections with each other, no matter where they are located.

Throughout the pandemic, we have accomplished even more new ways to reach you and others outside our community: we updated our website, started an Instagram account, reached out more often with our e-newsletter, and worked on a podcast with our partners at UVM Extension. We made Cooperator signs available for you to hang on your land to let others know you are working to support wildlife.

Of course, peer-to-peer learning is the core of the Vermont Coverts mission. We plan to continue doing online programs, but we all miss connecting in person. In collaboration with Cooperators, we are once again offering local programs.

We are implementing new ideas in 2022. At the Trainings, we will add more emphasis on ways to engage and connect with other landowners. We want to encourage all Cooperators to share with others, through conversations with neighbors, articles in newspapers or online, or programs in your communities to name a few.

We are also pleased to share that, starting this year, we will be matching new Cooperators with mentors. Mentors will help answer the new Cooperators' questions and be a local support as they learn more about managing their land and reaching out to others. This is a program we plan to continue, and we will need more mentors to welcome new Cooperators to our peer-to-peer community. If you would like to be a mentor, please let us know.

We also started a pilot Advanced Training program to help Cooperators learn about new issues our forests and wildlife are facing, as well as enhance their outreach techniques. Eleven Cooperators participated in online and in-person discussions. It's a learning experience for them, and they will have new skills to offer programs in their communities. We will take what we learn from the pilot program and make adjustments, as we hope to offer this advanced training annually. Stay tuned!

Lisa and I, the Coverts Council, and your fellow Cooperators are here to support you in your endeavors. If you have a program idea that you need guidance on, need information to share with a neighbor, or want to get connected with other Cooperators in your area, please call or e-mail. This is the nature of what we do: supporting the network of Cooperators and the important efforts you're making on your land and in your communities.

This survey has shown us that you have enjoyed your Coverts experiences and found them rewarding and helpful. Your thoughts, suggestions and actions make us stronger. We are making a difference for Vermont's woodlands and wildlife by engaging, connecting, and acting … together.

Helping Pollinators in Our Woods

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their particular flowers. Some fly only as long as the flowers persist, gathering the pollen to provision the underground nests for their brood who will emerge with next year's bloom.

In addition to the pollen specialists, there are also generalist native bees who visit a variety of spring wildflowers for pollen and nectar, including small carpenter bees (Ceratina spp.), mason bees (Osmia spp.), sweat bees (Lasioglossum spp.), and bumblebees.

Overbrowsing by white-tailed deer can eliminate the presence of spring ephemerals, and in turn, the bees who use them; therefore we need to do our part to keep deer populations in check.

Another looming threat to spring ephemerals and their associated bees is invasive jumping worms. Since these worms decompose the leaf litter on the forest floor at an increased rate, flowers like Hepatica and others that thrive with a dense cover of leaves may be affected.

Moving from the ground to the understory, we are well aware of the negative impacts of invasive shrubs and trees on the health of our forests. By controlling invasives and allowing native shrubs including dogwoods (yes, they have a pollen specialist tool!) and viburnums to reestablish, we are once again providing

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Helping Pollinators in Our Woods

pollen and nectar sources for many species of native bees.

With the progression of spring many of the trees in a diverse canopy provide excellent resources for pollinators. Red maples, cherry, and basswood are visited by cellophane bees (Colletes spp.), miner bees, sweat bees, and bumblebees. If we move to the edges of our forests, there is a great opportunity to provide pollinator habitat with native shrubs like willow, elderberry, and serviceberry. Again, heavy deer browse can decrease flowering, so while you may have the plants, their ecosystem services will be reduced if they can't flower and fruit.

Although we are talking about pollinators, we must also keep in mind that many of our native plants also have relationships as host plants for a wide range of butterflies and moths (Lepidoptera) whose caterpillars feed generations of birds and provide food in the form of berries to many birds and other animals.

Pollination is where it begins, and ecological forest management is a way to ensure that insect-plant relationships that have evolved over millennia can continue. When we are mindful of the complexity of the diverse soil-fungal-plant-insect-animal (-plus?) relationships within forests, “our” woods can maintain their natural resilience and support all the layers of life within them, including native pollinators.