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IT'S ALL CONNECTED

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presented by



Resolved: They Are Octopuses, Not Octopi

Our sister podcast, Nature's Archive, just released an engaging episode about octopuses. Host Michael Hawk interviewed famed nature author Sy Montgomery and OctoNation founder Warren Carlyle about their new book, [Secrets of the Octopus](#). Their discussion covered everything from octopus diversity to camouflage to reasoning/thinking/intelligence, and all points in between.

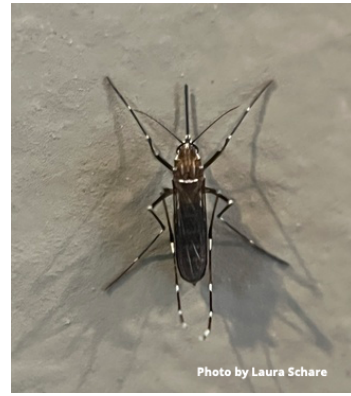
We'll share a quick teaser: Mr. Carlyle characterizes octopuses as having "satellite brains" in each of their arms, because they are able to "think" and act independently, and each arm even gains some unique traits and capabilities. Tune in [here](#) to hear the full Nature's Archive episode.

Can't get enough about octopuses? Stand by because there is a three-part National Geographic series directed by James Cameron coming out on Earth Day (April 22), which is based on this work. Moreover, RadioLab and Sy Montgomery aired a "[RadioLab for kids](#)" about octopuses, which will appeal to the youngsters as well as the octopus lovers among us.

Oh, and do you want to know why it's octopuses and not octopi? Well, you'll have to check out the [podcast episode](#) to find out. Happy listening!

To Spray or Not to Spray

This issue we delve into the itchy topic of mosquitoes and how to control them. We've decided to share a short excerpt from the book *"From Wasteland to Wonder - Easy Ways We Can Help Heal Earth in the Sub/Urban Landscape"* by Basil Camu. In Chapter 15 entitled "More Easy Ways to Promote Outrageous Diversity!", Mr. Camu shares the following insights and suggestions:



Stop Using Mosquito Spray Services

Traditional mosquito control is devastating to all life, including humans. Most of these sprays contain pyrethrin or pyrethroids (the synthetic version of pyrethrin). Both are nerve agents that disrupt our nervous system and brain function. Ditto for all life affected by the spray. Some mosquito spray companies advertise their products as being all-natural. Indeed, pyrethrin is all-natural. But so is asbestos. Being "all natural" does not necessarily make a product safe.

As if all this was not enough, mosquito sprays are downright ineffective. Think about it—the mosquitoes can still fly in from neighboring properties. We would have to spray all the neighboring properties, and perhaps the entire city, to keep them out of our property. Even then, this assumes the spray actually kills all of the mosquitoes on site. It will kill many, but some will survive. Those that survive have fewer predators to eat them, since many of these predators were killed or harmed by the spray. With fewer predators, the mosquito population rebounds more quickly.

Because mosquitoes reproduce so quickly, they can develop resistance to chemicals. As we speak this is happening—mosquitoes are becoming resistant to many of the usual chemical approaches, such as pyrethrin.

What are our alternative options for controlling mosquitoes? We can do the following:

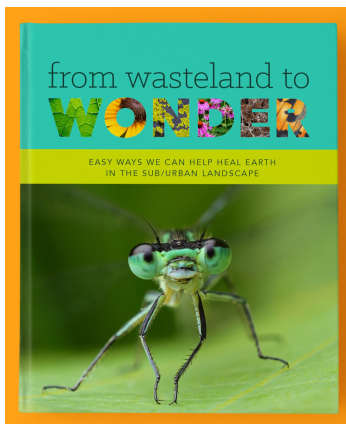
- Create habitat so predators like bats and lizards take up residence in our landscape. They love eating mosquitoes.
- Mosquitoes breed in water and puddles. We should reduce standing water by ensuring none collects in buckets, gutters, downspouts, pots, hollows, etc.
- For standing water we can't dump or drain, buy BTI mosquito dunks. These contain a substrain of the *Bacillus thuringiensis* bacteria we learned about earlier that eat baby mosquitoes.
- Remove English ivy because it holds water and creates the perfect breeding ground for Asian tiger mosquitoes. It is also invasive in the United States.
- Garlic spray can serve as an alternative to traditional mosquito sprays. It is approximately as effective as traditional sprays (i.e., not very effective), but without the damaging consequences.

- Use fans. Mosquitoes are bad at flying. Strong fans blowing across a patio or porch will rid it of these blood sucking fiends.
- My preferred approach: we can apply nontoxic balms and sprays on our bodies or wear long sleeves, tuck our pants into our socks, and wear a head net. By protecting ourselves at the point of contact, we can generate the most effective defense against mosquitoes.

Here is additional help on this topic for those who want more: <https://xerces.org/pesticides/effective-mosquito-management>

Because we are now deep in this topic, let me touch on one other ineffective approach: bug zappers. These devices use ultraviolet (UV) light to draw in mosquitoes where they then contact an electrical grid that kills them. Unfortunately mosquitoes are not attracted to UV light. They are attracted to CO₂ that we and other life exhale. The insects that do get zapped include beneficial solitary wasps as well as moths, whose caterpillars support our bird populations. Skip the bug zappers.

Before I leave this topic, I want to note that all life has value, even mosquitoes. At a minimum, they provide a huge amount of food for other insects, birds, and bats.



Mr. Camu provides so much more insight into ways we can adjust our landscape and gardening habits to the benefit of ourselves and the environment. Doug Tallamy, renowned author, environmentalist, and professor in the Department of Entomology and Wildlife Ecology at the University of Delaware, reviewed the book and wrote: *“In all of my years of reading environmental literature, I have never encountered writing as compelling and comprehensive, yet clear, accessible, and uplifting as Basil Camu’s From Wasteland to Wonder. Not only will you learn why you should consider sharing your property with trees and the many species that depend on them, but you will learn how to do this in economical and eco-*

friendly ways. Basil’s logic will overwhelm any lingering doubts you may have about this approach to landscaping and provide that kick in the pants so many of us need to take action.” Get your copy of Basil Camu’s book, *From Wasteland to Wonder* [here](#).

Quick Connections

Books, websites, documentaries, podcasts, events, quotes, and more



Spring bird migration is in full swing in most places and the Audubon Society published an enlightening article about the [astounding ways birds change their bodies](#) in preparation for their trip.



Quote we're pondering

“The ultimate test of man’s conscience may be his willingness to sacrifice something today for future generations whose words of thanks will not be heard.” - Gaylord Nelson



Creature Feature

Have you ever stumbled upon a swarm of bees busy digging along a trail? These are likely one of several species of ground nesting bees creating nests for their offspring. Retired filmmaker and Santa Monica Mountains volunteer, James Carey, created this series of [short videos highlighting the Bindweed Turret Bee](#), which is a solitary, native bee to California. They don't sting and are valuable pollinators. Please do give the nest areas a wide berth so the bees may propagate their future generations.



Global Event

Cities, counties, provinces, states, and regions around the world will collaborate to share observations of nature in the 2024 [City Nature Challenge](#) from April 26-29, 2024. Grab your camera or cell phone, download iNaturalist, and join in the fun. Learn even more about the City Nature Challenge in this [Nature's Archive podcast](#) discussion with Alison Young, one of the creators of the City Nature Challenge.

Community Connections

We want to connect with you. April is Earth month and April 22nd is celebrated as Earth Day. Though I believe every day is Earth day.

What events might you attend or what actions might you take to make our shared planet a little bit better?

We read each and every response and will share selected reader stories in upcoming newsletters.

Your feedback is important. [Tell us](#) how we are doing and what you would like to see covered in future newsletters.

Every connection counts! Please help grow our community of everyday heroes by sharing this newsletter with a friend or colleague.

Thank you,

Laura Schare, Editor

Michael Hawk, Founder

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