



VES NEWS

The Newsletter of the Vermont Entomological Society

Number 115
Spring 2022



Hummingbird Clearwing Moth (*Hemaris thysbe*)
Photo: Ron Kelley

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The **Vermont Entomological Society (VES)** is devoted to the study, conservation, and appreciation of invertebrates. Founded in 1993, VES sponsors selected research, workshops and field trips for the public, including children. Our quarterly newsletter features developments in entomology, accounts of insect events and field trips, as well as general contributions from members or other entomologists.

VES is open to anyone interested in arthropods. Our members range from casual insect watchers to amateur and professional entomologists. We welcome members of all ages, abilities and interests.

You can join VES by sending dues of \$15 per year to:

Deb Kiel
147 Allen Irish Road
Underhill, VT 05489

CONTENTS

President's Message	pg. 3
VES Calendar	pg. 5
Programs of Interest	pg. 5
In Search of Missing Lady Beetles	pg. 6
Odds and Ends	pg. 6
First U.S. Record of Common Blue Butterfly	pg. 7
Tobacco and Tomato Hornworms: Friends or Foes?	pg. 9

Newsletter Schedule

Spring: Deadline April 7 - Publication May 1
Summer: Deadline July 7 - Publication August 1
Fall: Deadline October 7 - Publication November 1
Winter: Deadline January 7 - Publication February 1

Want to submit an article?

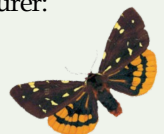
Please contact Laurie DiCesare NatureHaven@MyFairPoint.net,
"VES News" on subject line, for Guidelines.

Membership Check Your Mailing Label

The upper right corner of your mailing label will inform you of the month and year your VES membership expires.

Dues are \$15 and can be sent to our Treasurer:

Vermont Entomological Society
c/o Deb Kiel
147 Allen Irish Road
Underhill, VT 05489





Hello,

As I write this message, I get the feeling that spring has finally sprung. On a recent walk at **Helen W. Buckner Preserve** in West Haven, Vermont, there was an excellent display of spring ephemerals. Several large female bumblebees were visiting a patch of Dutchman's Breeches (*Dicentra cucullaria*). On a walk this weekend at **Mars Hollow Road** in Colchester looking for West Virginia Whites (*Pieris virginiensis*), I was peppered with deer ticks. I think I have finally decided to start spraying my clothes.

As spring opens her warm embrace, I am hoping that the Covid virus is on its way out. Even while Covid transmission numbers are going up, for some reason I feel good about getting out and resuming normal activities. Wish us luck.

I hope you receive the VES newsletter before our **Annual Meeting** scheduled for May 21st and I have had the opportunity to meet some of you this year. Even if not at the annual meeting, then at some event during the year.

Some calendar events for the year that we already know about are: the **Adamant Black Fly Festival (Adamant)** on June 4th.; and the **Mercy Ecology BioBlitz** (West Haven) on June 18th. To register go to <https://www.eventbrite.com/e/mercy-ecology-bioblitz-tickets-243956308887>.

In June there is probably still time to look for West Virginia Whites (*Pieris virginiensis*): <https://val.vtecostudies.org> and search for west-virginia-white-watch.

This spring I had the opportunity to attend the **Northeast Natural History Conference (NENHC)** in Albany, NY after its two-year hiatus. There were a number of entomology-related presentations and posters. I presented on the Vermont Entomological Society "It's Value and Need For". Lindsey Pett, a Ph.D. candidate at the University of VT, presented on "*Metriocnemus knabi* Emigrates from Desiccated to Undessicated Pitchers of *Sarracenia purpurea*". Laura Hatmaker, a Graduate Teaching Assistant at UVM, gave a poster presentation "Two Lobes Diverged by a Stream Channel: One Peatland's Story of Succession".

I was surprised with Linsey's presentation that a moth hardly known to lepidopterists, *Exyra fax*, is a major pest on the Pitcher Plants in her study. I'm looking forward to going out on my own to try to collect some *Exyra fax* larvae. Laura, an occasional

contributor to the VES newsletter, informed me that she will be taking a job in Maine. We wish her the best with her new pursuits.

Eagle Hill Institute (<https://www.eaglehill.us>), which puts on the NENHC, also has week-long environmental presentations at their site in Steuben, ME during the summer. Often these presentations are on invertebrates such as **Charley Eiseman's** upcoming seminar "Tracks and Sign of Insects and Other Invertebrates" (July 31 to August 6) which is already full.

In the past, VES members have received a 10% deduction on Eagle Hill Seminars. VES has also offered a 10% refund to members for attending invertebrate-related seminars with proof of registration.

A bit of bad news this spring for those interested in natural history was the announcement of the pending closing of **BioQuip Products** in Rancho Dominguez, CA. For 75 years, BioQuip has been the J. C. Penny one-stop shopping department store of entomological and other natural history supplies. Their closing has put a damper on my activities as I waited in limbo for the possibility of my last supply orders being filled as well as having to reconsider/prioritize what entomological activities I will pursue. The BioQuip owners have been trying to sell the business and there is a rumor that a former employee is trying to buy the business, but for now I need to find alternative sources for buying equipment.

Educational: Ohio State is offering a free series on bumble bee biology and identification: <https://u.osu.edu/thebumblebeeshortcourse/recordings/>

This past Sunday (May 1) was the **UVM Thompson Zoological Collections's Museum Day**. My complements to Leigh Sweet and others for putting this event together. There was a great turn-out for the event which included inside and outside activities as well as collections from other parts of the campus and volunteer and student presentations. Volunteers showed the digitalization efforts going on with the collection as well as providing camera *lucidas* so



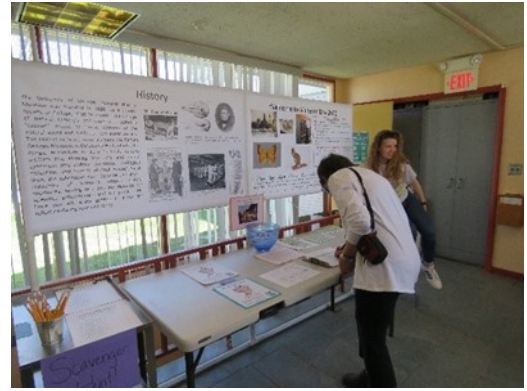
President's Message (continued)

people could try their hands at drawing natural history specimens.

I was amazed at the enthusiasm and interest there was on display for natural history subjects, including people excited about mosquitos and ticks. News to me was the on-going research by the UVM Wildlife Pathogens lab, <http://www.wildlifepathogens.org>, on mosquitos as malaria vectors in deer and loon populations.

Looking forward to seeing you soon,

Michael Sabourin



Deb Kiel signing in at Blundell House
Photo: Laurie DiCesare



Deb Kiel and Michael Sabourin
Photo: Laurie DiCesare



Noah Gowell demonstrating digitization.
Photo: Michael Sabourin



Lepidoptera display,
Blundell House
Photo: Laurie DiCesare



UVM undergraduate volunteer
Jenna McCue
Photo: Michael Sabourin



UVM MS student Lauren Berkley
Wildlife Pathogens Lab
Photo: Michael Sabourin



- May 21, 2022: VES Annual Potluck Meeting (11a.m.- 2p.m), Randolph Ctr., VT** at VT Agency of Agriculture, Food & Markets, 163 Admin. Drive, Randolph Center, VT 05061. Enter Vermont Technical College (VTC) campus, then look for state building below hill on your left. (Note: citrus products not allowed on site)
- June 4, 2022: Adamant Black Fly Festival (11a.m.- 3p.m), Adamant, VT:** <https://www.adamantcoop.org/blackfly-festival>.
- June 18, 2022: Mercy Ecology BioBlitz, West Haven, VT.** To register go to <https://www.eventbrite.com/e/mercy-ecology-bioblitz-tickets-243956308887>.
- June 18 - 26, 2022: Vermont Lady Beetle BioBlitz:**
<https://www.inaturalist.org/projects/vermont-lady-beetle-bioblitz-2022>.
- June 25, 2022 (10a.m.): Northfield, VT: Burnham's Cilohocla property.** Meet at I-89 Exit 5 commuter parking lot. Explore a family camp with pond and hopefully discover some Showy Lady Slippers. Rain date, Sunday, June 26; contact Doug and Mary Burnham at burnham.doug@gmail.com or call 802.229.9578.
- July 9, 2022 (10 a.m.): Birds of Vermont Museum, Huntington, VT:** Annual butterfly and bug walk, 900 Sherman Hollow Road; Rain date Sunday, July 10; contact www.birdsofvermont.org, or call 802.434.2167.
- July 23 - 31, 2022: 5th Annual Vermont Moth Blitz 2022:**
<https://www.inaturalist.org/projects/vermont-moth-blitz-2022>
for past results see: <https://www.inaturalist.org/projects/vermont-moth-blitz-2021>
- July 20, 2022 (5 p.m.): Woodbury, VT: Cranberry Meadow;** details to follow.
- July 23 - August 8, 2022: 3rd Annual Vermont Mission Monarch Blitz:**
<https://val.vtecostudies.org/missions/vermont-mission-monarch-blitz/>.
- July 27, 2022 (5 p.m.): Marshfield Jaquith Library: Monarchs, Lady Beetles, and Bugs;**
Family event at School House Commons.
- August 6, 2022 (10 a.m.): Putney, VT:**
Joint field trip with Putney Mtn. Association, details to follow.

Programs of Interest



North Branch Nature Center: 713 Elm Street, Montpelier, VT: NorthBranchNatureCenter.org 802.229.6206

- **June 11, 2022 @ 9:00 AM - June 12, 2022 @ 5:00 p.m.: Wasps: Misunderstood Marvels – Biodiversity University, \$265.** <https://northbranchnaturecenter.org/event/wasps-biou2022/>.
- **June 18, 2022 @ 9:00 AM - June 19, 2022 @ 5:00 p.m.: Native Pollinators – Biodiversity University, \$265.** <https://northbranchnaturecenter.org/event/pollinators-biou2022/>.

Eagle Hill Institute: 59 Eagle Hill Rd., Steuben, ME; eaglehill.us 207-546-2821 ext. 4.

- **June 12-18, 2022: Intro. to Tardigrade Study and ID:** Instructors Emma Perry and William Miller.
- **July 31, 2022 – Aug. 6, 2022: Tracks and Sign of Insects and Other Invertebrates** presented by Charley Eiseman. <https://www.eventbrite.com/e/mercy-ecology-bioblitz-tickets-243956308887>. (Program is full.)



Vermont Center for Ecostudies (VCE): In Search of Missing Lady Beetles

By Julia Pupko

She moves through your garden with great stealth, hunting. She knows her next meal is here somewhere, she can smell it. She creeps closer, closer. Suddenly, her prey is within striking distance. She just has to make sure that it doesn't sense her before she's close enough to pounce. With a final rush of movement—success!

If you had looked out your back window towards your garden at this exact moment, you likely would not have seen this drama unfolding: a female lady beetle stalking an aphid through your peas. Most lady beetles (also called ladybugs) feed on small, soft-bodied insects, including aphids, mealybugs and scale insects, many of which can cause a lot of damage to garden plants and native flora if their populations grow too large.

Read the full article and learn how to help us search for four native focal species that are still missing on the Vermont Lady Beetle Atlas project journal. While you're there, be sure to join the project!

<https://val.vtecostudies.org/wp-content/uploads/2022/04/VLBA-Survey-Manual-2022-final.pdf>

Contact: Julia.Pupko@vtecostudies.org



15-Spotted Lady Beetle
(*Anatis labiculata*)
Helen W. Buckner
Preserve,
West Haven, VT
Photo: Laurie DiCesare

Odds and Ends:

By Savannah Ferreira

Cordyceps fungi were observed growing out of a hawk moth in Johnson. This entomopathogenic fungus colonizes the infected host with its hyphae, consuming its tissue from within. This fungus has the



Cordyceps-infected hawk moth.
Photo: Andrew Hirsch

ability to take over the host's living functions, controlling their minds and their bodies. Hosts climb to high vantage points before fruiting to aid in the fungi's dispersal and increase infections. To learn more about this group of fungi, and their associations with ants and other insects,

check out this video link: <https://www.youtube.com/watch?v=vijGdWn5-h8&t=13s>.

Blackberry seed gall caused by a cynipid gall wasp *Diastrophus cuscuteaformis*, was observed on blackberry stems this winter. Although this looks like one giant stem gall, blackberry seed gall is a cluster of many small galls that are formed during the growing season. These galls provide food and shelter for immature larvae.



Blackberry seed gall
(*Diastrophus cuscuteaformis*)
Photo: Chloe Sardonis

First United States Record of *Polyommatus icarus* (Common Blue)

By David Barrington and Bryan Pfeiffer

Ever since its discovery near Montreal in 2005 (Hall 2007), the introduced *Polyommatus icarus* (Common Blue) has been expanding its North American range, which now includes the first United States record here in Vermont.

A team of botanists made the discovery on September 5, 2020, in Alburgh, Vermont (Grand Isle County). Catherine Paris and Elizabeth Thompson have for years offered the most ambitious course for field botanists on the flora of Vermont, tailored to the needs of the University of Vermont's master's-level Field Naturalist Program. Knowing the two botanists has its advantages: co-author Barrington is often invited on scouting trips for the course, including one last fall to Alburgh Dunes State Park, which lies approximately 70 miles from the presumed *P. icarus* introduction site near Montréal-Mirabel International Airport (Aérocité Internationale de Mirabel) (YMX).

On that day, Paris and Thompson were eager to refresh their thinking about the lakeshore dunes and black-spruce swamp plant communities at the park, and to decide on the key plants to present to students based on the state of the flora. Located in northwestern Vermont, the park is situated at the extreme southern end of a peninsula jutting south from Quebec into Lake Champlain. To the west of the peninsula is the source of the Richelieu River, which drains Lake Champlain into the St. Lawrence River.

The three botanists had a good day. In the spruce swamp, they searched for and successfully located fertile shoots of *Arceuthobium pusillum* Peck (dwarf mistletoe), parasitic on the black spruce. On the south-facing dunes of the beach, they recorded — for the first time in some years — *Artemisia campestris* L. ssp. *caudata* (Michx.) H. M. Hall & Clem. (field sagewort) at its Alburgh station. Several dwarf *Cyperus* species, reproductively prolific in the wet sands exposed by the low lake levels following from the later-summer drought, particularly engaged the botanists' attention.

With their excursion more than satisfactory, the botanists returned towards the car. A small cultivated planting in the sunny lawn at the entrance

to the beach (44.866386N, 73.303383W) included, in full bloom, *Asclepias tuberosa* L. (butterflyweed). This milkweed is a member of Vermont's native flora, but the plant at this site was certainly cultivated. Barrington, having noted in recent years that he had more to learn about the butterflies of Vermont, noticed a solitary member of the Lycaenidae on the *Asclepias* that was utterly new to him. He snapped a few photographs. The lycaenid nectared long enough for Thompson to join him for additional photos.

Their mystery butterfly was subsequently identified by co-author Pfeiffer as *P. icarus*. The discovery appears to be the first US record, based on a review of records at iNaturalist, e-Butterfly.org and GBIF (Global Biodiversity Information Facility). And yet it wasn't the only US record for 2020. Five additional sightings followed that autumn — all from St. Albans City, Vermont (Franklin County), by Laurie DiCesare and colleagues, on September 15, 22 and 25, 2020. Those additional records are approximately 11 miles southeast of the botanists' Alburgh site.

Our assumption is that these US records represent range extension from the initial *Polyommatus icarus* site near Montreal. After all, the road to Vermont is paved with host plant — and ants. Widespread and multivoltine (having more than one brood in a season) across its native range, *P. icarus* uses varied hostplants in the Fabaceae, including *Lotus corniculatus* (common bird's-foot-trefoil), *Medicago lupulina* (black medick) and *Trifolium repens* (white clover), all of which are native to Eurasia and now well established across much of North America.

Like many other members of the Polyommatinae, *P. icarus*, in late larval instars, is myrmecophilous (tended by ants) including ants in the genus *Lasius* in their native range. Here in North America, *P. icarus* is now known to engage in myrmecophily with *Lasius neoniger* (Dexheimer et al. 2021). This exclusively North American ant species appears to be dominant and abundant across varied habitats, including ruderal sites, occupied by *P. icarus* and some of its hosts in North America.

First United States Record of *Polyommatus icarus* (Common Blue) (continued)

Might the provenance of these Vermont *P. icarus* records be similar to those of Quebec — namely jet air travel? Although impractical to disprove, an air assist to Vermont is unlikely. Neither Burlington International Airport (in Vermont) nor Plattsburgh International Airport (in New York), each of which lie within 30 miles of the two Vermont *P. icarus* sites, receive regular international passenger flights. Private international jet services do land at each airport. Yet, at least in Burlington's case, no *P. icarus* records come from the vicinity of the airport, despite an active butterfly-watching community in Vermont (reflected in part by the state's relatively high per capita iNaturalist participation).

Instead, it appears that *P. icarus* has been radiating in all directions from the site of its initial discovery near Montreal, and these US occurrences were only a matter of time — and indeed predicted (Miller 2018). Also of note is that the final flight of *P. icarus* appears to be the most abundant (most Quebec records are from September), which coincides with northwesterly autumn winds in the region.

It therefore came as no surprise that *P. icarus* turned up in New York for the first time this past autumn. On September 4, 2021, Bryan Pfeiffer and Josh Lincoln visited four roadside sites around Rouse's Point and Champlain, New York, each with *L. corniculatus* and other potential host and nectar plants in bloom. They easily found and photographed *P. icarus* flying in good numbers at three of the sites. At each site, *P. icarus* showed strong fidelity to *L.*

corniculatus for ovipositioning and nectaring (although it nectared on other plants as well).

Judging by the relative abundance of *P. icarus* during this expedition, it appears that this multi-voltine species had established itself in New York prior to 2021. Bryan and Josh also located a new site — along Missile Base Road in Alburgh.

Although it is not native to North America, this blue is photogenic and serves as good company in weedy roadsides as other flying leps begin to wane in early September. The three images included here came from a roadside ditch located at 44.9916, -73.4130. An extremely convenient site for observation of *P. icarus* in New York would also be among the *L. corniculatus* at an abandoned shopping mall (44.9839, -73.4619) off Interstate 87 west of the village of Champlain.

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Common Blue (*Polyommatus icarus*),
(dorsal view)
Photo: Bryan Pfeiffer



Common Blue (*Polyommatus icarus*),
(dorsal view)
Photo: Bryan Pfeiffer



Common Blue (*Polyommatus icarus*),
(ventral view)
Photo: Bryan Pfeiffer

Tomato and Tobacco Hornworms: Garden Friends or Foes?

By Judy Rosovsky

The Sphingid family, sometimes known as the hawk moths or sphinx moths, are robust in size as both larvae and adults, and have attractive coloration in both life stages. There are about 1450 Sphingidae worldwide, and about 70 species in the east (Wikipedia, 2021a; Wagner *et al.*, 1997). Sphingid larvae are large, often green or brown with white stripes and dots, and most are characterized by a rear dorsal horn. The adults are strong flyers and some are beneficial pollinators, perhaps offsetting the damage done by certain species of hornworm larvae. Some species can hover, which has given rise to another common name, the hummingbird moths.

To the untrained eye many of the green bodied, white striped larvae might look a lot alike, but keen-eyed observers can detect subtle differences, such as horn color, number and location of round spots, number of lines and other decorative distinctions. Two easy to distinguish species that are sent to me in their larval forms are the Abbott's sphinx, *Sphecodina abbottii*, and the Galium or bedstraw sphinx, *Hyles gallii*. They have easily-identifiable patterns and colors.

Two of the more infamous hornworms are *Manduca sexta*, the tobacco hornworm, and *Manduca quincemaculata*, the tomato hornworm. The tobacco hornworm has other common names including Goliath moth and the tobacco hawk moth and as an adult it is known as the Carolina sphinx moth (Wikipedia, 2021b). The tomato hornworm in its adult form is called the 5-spotted hawk moth. The following table lists their key identifying characteristics:

Species	Common Name	Margin color	# Stripes/side	Horn	# Spots
<i>M. sexta</i>	Tobacco hornworm	Black	7	Red	6
<i>M. quinquemaculata</i>	Tomato hornworm	Green	8	Blue	5

The Wikipedia article on *Manduca sexta* (Wikipedia, 2021c) cites a helpful mnemonic that points out that the tobacco hornworm white stripes are straight like cigarettes while its congener, the tomato hornworm, has stripes that are V-shaped like vine-ripened tomatoes. The apple, wild cherry, Clemen's and possibly the fawn sphinx moth larvae could possibly be confused with the Carolina sphinx, but the other species have markings on their heads that the Carolina sphinx lacks.

Tomato and tobacco hornworm life cycles are similar; both species can have at least two generations a year and the time for completion of the cycle varies with temperature. The female adults lay single eggs on leaves which hatch in 3-5 days. It takes about 3-4 weeks for the larva to go through their 5 to 6 instars, then they pupate in the soil and can overwinter as pupa. The caterpillars usually stay on the same host plant where their egg hatched, only leaving to pupate or if the plant is consumed. They will eat leaves, stems and fruit including tomatoes (Byron and Gillett-Kaufman, 2017).

Because these larvae become large, sometimes close to 4" long, they require a great deal of food and can wreak havoc on gardens as they grow. Irate gardeners who are not impressed by their size and coloration can handpick and drown the caterpillars from their plants. The bacteria-based biocontrol *Bacillus thuringiensis*, *Bt*, can be used on early instar caterpillars. The timing of the application of *Bt* is the key to success so read the label carefully. Standard chemical controls for insects work on tomato and tobacco hornworms too, but keep in mind that these

insects are good pollinators and efforts to kill them can kill other beneficial insects. Since the insects pupate in the soil, tilling the soil in the spring or fall can reduce the pest population.

Natural enemies of a large juicy target like *Manduca* sp. abound. A common wasp parasitoid is the Braconid wasp *Cotesia congregata*, whose pupa emerge during the 4th to 5th instar of the hornworm caterpillars. The parasitoid wasps lay eggs on 1st to 3rd instar *Manduca* larva, then the wasps emerge and pupate, appearing as white cocoons on the backs of the *Manduca* larvae (Toennisson, 2013). Don't handpick and drown *Manduca* larvae that have signs of parasitoids if you want to encourage parasitoid populations. Living, unparasitized *Manduca sexta* will exact a slight revenge by eating the *Cotesia* cocoons when available.

Hornworm egg parasites include stilt bugs (*Jalysus spinosus*), both adults and nymphs, and *Trichogramma* wasp species, though there is some evidence that hornworm eggs have defenses against *Trichogramma* sp. Lacewings and lady beetles eat hornworm eggs and small larvae. *Hyposoter exiguae* are Ichneumid wasps that are parasitoids of early instar hornworms (Villanueva, 2010). *Polistes* sp. (paper wasps) are a parasitoid wasp that use caterpillars including *Manduca* sp. as food sources for their larval stage offspring. At least two Tachinid flies, *Winthemia* sp. and *Achyta marmoratus*, are pupal parasitoids (Toennisson, 2013).

Many sphingids are named after their primary host plants, but despite their names, both *M. sexta* and *M. quinquemaculata* feed on tomatoes and tobacco and other plants in the nightshade family Solanaceae. In addition to their namesake hosts, jimsonweed (*Datura meteloides*) is a Solanaceous host for both species and engenders some interesting behavior from the moths and their parasitoids. Solanaceae have steroidal and triterpenoid glycosides, one of which may induce feeding preference in the larvae. And female adults apparently will not lay eggs on hosts that larvae have fed on; it is thought they can detect the plant volatiles released by larval feeding ([Byron and Gillett-Kaufman, 2017](#)). It was thought that feeding on jimsonweed might cause erratic behavior in Sphingid

feeders but this has not been clearly demonstrated (Reynolds, 2009).

One parasitoid, the Tachinid fly called *Drino rhoeo*, hones in on a species of jimsonweed, *Datura wrightii*, to find *M. sexta*. This does seem to help the plant as the hornworms eat less once parasitized. The fly detects olfactory cues released both by the attacked host plants and by frass emissions produced by the larval *Manduca sexta*. The arrival of this Tachinid and its subsequent parasitoidism has been found to decrease the weight and growth of the hornworm larvae which then consume less of their host plants (Wilson and Woods, 2015).

The wild tobacco plant (*Nicotiana attenuate*) has found a way to solve the dilemma that gardeners face of whether to keep the pollinator or eliminate the pest. This plant releases a compound to attract *Manduca sexta* at night and releases the same compound in the day to attract a predator of hornworm eggs and young larvae, the big-eyed bug, *Geocoris* sp., (Max Planck Institute, 2017). Ironically, *M. sexta* can make creative use of the toxins from nicotine by excreting them to repel predators like wolf spiders (Kumar *et al.*, 2014), in a process known as 'toxic halitosis'.

While plants and insects and their natural enemies continue to use their own and each other's chemical and biological output to survive and thrive, garden growers can stack the deck a bit. Wasp shelters, which are often just a piece of wood with holes drilled in it, can be placed near Solanaceous plants to encourage a healthy parasitoid population. *Manduca* sp. resistant plant varieties can be purchased, tilling after the hornworms go to ground and rotating in less palatable crops can help limit how much the hornworms will horn in.

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Tomato and Tobacco Hornworms: Garden Friends or Foes? (continued)

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Tobacco hornworm adult, (*Manduca sexta*), a.k.a. Carolina Sphinx, note 6 yellow abdominal spots per side



Tobacco Hornworm larva (*Manduca sexta*), parasitized by a wasp. Photo: Fred Foy



Tomato Hornworm adult, (*Manduca quinquemaculata*), a.k.a. 5-Spotted Hawk Moth, note 5 spots on abdomen/side
Photo: © Vermont Center for Ecostudies, CC BY-NC, Essex Junction VT
<https://www.inaturalist.org/photos/39737139>



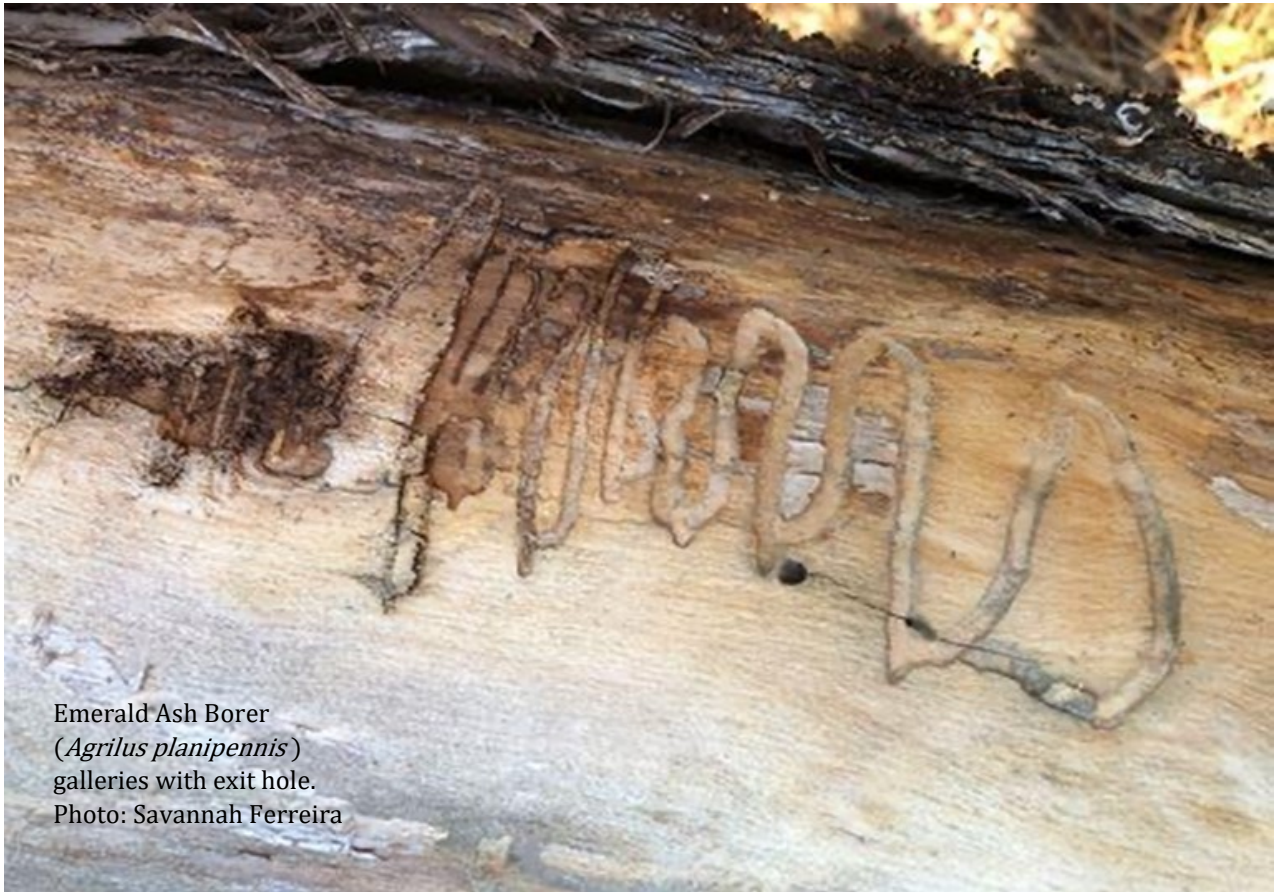
Tomato Hornworm larva (*Manduca quinquemaculata*), note V-shaped markings
Photo: © philohela, CC BY-NC, Las Vegas, Nevada
<https://www.inaturalist.org/photos/162782764>



Galium or Bedstraw Sphinx Moth larva (*Hyles gallii*), commonly found crossing roads.
Photo: Tracey Fillie, Middletown Springs, VT



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Emerald Ash Borer
(*Agrilus planipennis*)
galleries with exit hole.
Photo: Savannah Ferreira