DECEMBER 15–31, 2021 NATURAL HISTORY NOTES By Dick Harlow

2021 YEAR'S ANALYSIS INTRODUCTION



Black Swallowtail Butterfly, <u>Papilio</u> <u>polyxenes</u>, male, © Dick Harlow

We have survived another year of the world's current Pandemic of **COVID-19** and its variants! However, I don't believe we can say the wildlife that have not survived is due to the Pandemic. Fewer bird and butterfly species were observed this year around EastView compared with previous years.

Generally, Biologists and Naturalists are concerned that the number and types of insects are down in number and type. Yet, here at EastView, although the bird and butterfly species are down, friends and other observers have told me that at least the butterfly's numbers are up in other areas of Vermont.

Insects are very important for the pollination of regular and commercial crops as well as being food to many varied organisms. I am concerned about the numbers of butterflies, birds,

mammals, and other organisms that have been noticeably absent around EastView.

Bird populations depend on insects for their survival. Decreasing Dragonfly species also depend on insects for their survival. Insects that pollinate all types of flowering plants as well as commercial crops are in fact decreasing. There is grave concern amongst the scientific community.

Yes, some species of birds may have lost habitat because of human encroachments or habitat destruction, thus a reduction in their population. However, oversimplification aside, environmental concerns throughout the world are making more people aware of the problems in the world and on the planet.

We live on a finite Globe. What we see is what we get. We live in a closed environment. The food we harvest is dependent on soil, water, sunshine, and pollination. All animal and plant associations have evolved over time. To quickly change the status of evolution of those plants and animals is creating changes and cataclysms in the Natural World. Unfortunately, we still do not fully understand the language and data of those changes.

EASTVIEW BIRD SPECIES

Generally, this year has been disappointing for the number of bird species seen. This year, only 59 species have been positively identified as either seen from EastView property or seen on EastView property.

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Cooper's Hawk, <u>Accipiter</u> <u>cooperii</u>, Immature, © Dick Harlow

The one observation that hasn't markedly changed this year is our Fall hawk visitors. We usually have an immature Cooper's Hawk visiting us each Fall, trying out its survival skills at the expense of birds feeding at our feeders. Occasionally a pigeon is taken instead of a songbird, which please many EastView folk.

We also have had an immature Sharpshinned Hawk visit our yards, as well as both a Red-tail Hawk that will visit our area all Winter and a Northern Harrier that tends to show up primarily in the Fall and early Winter.

We did add a new species to EastView's bird list, an immature, Red-shouldered Hawk. Unfortunately, it was perched in a Red-tailed Hawk's territory and was quickly chased off by the local Red-tail Hawk before I had a chance to take its picture.

DRAGONFLIES



White-faced Meadowhawk, <u>Sympetrum obtrusum</u>, © Dick Harlow

Unfortunately, I did not survey dragonflies this year as I have done in past years, so I cannot offer any analysis of the species count or what has been seen on campus.

What I can say is that this summer has shown fewer insects in general and practically few to no dragonflies flying around the two EastView ponds or for that matter few to none seen in our backyard.

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BUTTERFLIES



Monarch, *Danaus plexippus*, © Dick Harlow

As mentioned in the introduction, fewer butterflies this year than in the past; only 10 species of butterflies have been identified here at EastView in 2021. Unfortunately, my note in October of only 6 species was in error. However, we have seen as many as 51 total species in one year. That particular year was 2014 at EastView. Therefore, the reader can understand my concern when only 10 species have been seen and identified in 2021.

Those 10 species are: Cabbage White, Clouded Sulphur, Orange Sulphur, Silvery Blue, Mourning Cloak, Canadian Tiger Swallowtail, Common Ringlet, Monarch, Viceroy and Pearl Crescent.

REPTILES

This year the primary Reptile observed was the Garter Snake, basically a garden snake that is good to have in your garden.

AMPHIBIANS

The amphibian population in number seems to have decreased, but the actual number of species is about the same.

Those species observed are: American Toad, Green Frog, Bull Frog, Pickerel Frog

MAMMALS



White-tailed Deer, <u>Odocoileus</u> <u>virginianus</u>, © Dick Harlow

The mammal species seen, heard, or who leave an odor have been apparent from year to year. We have lost some species seen in past years due to a change in that animal's environment, such as a Muskrat. Evidence of a Muskrat is currently absent from both of our

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ponds. We don't get a chance to see all the mammal predators, but I will mention those species we either hear, see, or smell.

Coydog or Eastern Coyote is usually heard rather than seen. Most observers have seen them or heard them around midnight to one in the morning. I sometimes hear them when I have stayed up late, but usually other residents tell me when they hear them howling or barking.

Red Fox, we do see a Red Fox from time to time hunting for food. We also had an occurrence with an emaciated fox looking for food that several community members witnessed. If mouse or vole populations are down and other food is hard to come by foxes can become very thin. If that happens, they can venture into human territory more frequently especially if there are no other conflicts like dogs, children or people trying to scare them away.

White-tailed Deer are seen fairly regularly, primarily does feeding in the Spring and early Summer. However, as our fields mature, and the grasses get taller and coarser deer seem to stay away. Plus, in the Fall we never see deer during hunting season, and, hardly ever in Winter.

Weasel, I believe it is a Short-tailed Weasel that uses my shed in the wintertime as its home base. He/she cleans out the resident Meadow Voles and any other rodents that live there and eventually leaves once his/her hunting becomes too arduous. The weasel's tell-tale fecal matter, and the age of the fecal matter gives me information as to the

quality of his/her stay in the shed. I have briefly seen the weasel on two occasions.



Short-tailed Weasel, <u>Mustela</u> <u>erminea</u>, © Frank Hecker

Striped Skunk, by odor only and usually in the morning suggesting that the skunk sprayed sometime in early morning. This is the only evidence that we have had skunk visits.

Rodents: The evidence that there are Rodents is actual visual evidence as well as fecal and the remains within the feces of predators or half-eaten bodies. Here at EastView the only ones observed this year are Meadow Vole, Field Mouse, Gray Squirrel and Eastern Cottontail Rabbit.

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CLIMATE

The climate of Middlebury, Vermont is mixed, but generally considered being part of a Middle Latitude Deciduous Forest.

Our average rainfall is 40 inches of rain per year, whereas the U.S. average is 38 inches. We have had in the past an average of 69 inches of snow per year, whereas the average for the U.S. is 28 inches of snow. And we normally see 159 sunny days during the year in Middlebury, when the country as a whole sees 205 sunny days per year.

Middlebury receives some form of precipitation, on average, 132 days per year. Precipitation is either rain, snow, sleet, or hail. In order for precipitation to be counted a measurement of at least .01 inches has to be measured on the ground.

Average Weather Highlights for Middlebury:

Summer High: 82 degrees in July. **Winter Low:** 9 degrees in January. **Rain:** 40 inches of rain a year.

Snow: 69-inch average per year.

WEATHER

All Measurements taken at solar noon (1230 EST).

PRECIPITATION

Average December Precipitation for Vermont = 2.36 inches.

Total precipitation for December was 41.2 mm or 1.6 inches. This is a 0.76- inch deficit for the month.

Overcast Days 1-31: We had 24 days of overcast skies. Of those overcast skies 16 days produced rain amounting to 41.2 mm. There must be at least 0.2 mm of precipitation in the collector to be counted.