

Rough-legged Hawk, <u>Buteo lagopus</u> Photo © Dick Harlow

The end of December will be devoted to a Review of 2014 at EastView.

We are now at the close of 2014 and ready to usher in the New Year! It has been an interesting year relative to the Natural History happenings and the collected data here at EastView.

We've seen an increase in diversity of bird species over the course of this year. Our grounds have shown stronger turf due to fertilization being applied twice during the growing season, whereas in 2013 none was applied and there were many bare spots and weak growth. Trees are being fertilized twice each year, so we all should see improvements.

The soils at EastView are primarily clay or clay derivatives and construction fill. Clay is very fine sediment, closely compacted, holds water and can be difficult for both shovels and plant roots to penetrate. If trees show stress by turning color early in the summer or early fall, or dropping their leaves early, the problem could be too much water, not enough water or disease. This might be obvious, but the dense clay soils tend to exacerbate the problem. In this very dense clay soil it is important for residents and staff alike to monitor the EastView plants.

Many cottages display increased plantings; the plantings that have been in the ground for just a few years have either become stronger and fuller or are struggling. The increased development of our grounds, which is still in flux, has added some wildlife value to our surroundings.

When we have snow, the blanket of snow on the ground can benefit our plants. It can act as an insulator shielding the ground and plants from the desiccating cold winter winds. This same blanket of snow can be difficult for birds of prey that depend on eyesight, trying to see movement under the snow. However, owls and foxes can hear and still find food under snow. Ice is another story. A sheet of ice over the ground, or over the snow makes it doubly difficult for most predators who are looking for a meal, but represents safety for those animals under it.



Wood Duck female and ducklings, Aix sponsa Photo © Dick Harlow

Wood ducks have visited our retention ponds this past year.

Bird Review

Bird journal recordings began in July 2013 and every day from then through 2014; however we plan to use 2014 as our base for comparison to future years.

The basis for record keeping here at East View is to develop a database of observed wildlife in a new development surrounded by agricultural land, woods, a river close by and suburbia in the vicinity. Science doesn't always have the benefit of collecting data when something physically affects a landmass, changes its form and develops a new physical identity to the landscape. EastView has that opportunity and it doesn't cost a cent!

The only rule implied is that all observations of actual recorded data here at EastView must be observed on or from EastView property.

Therefore, all species of wildlife recorded for 2014 were observed on or from EastView property.

Tools for observation: Weather Station, Binoculars, Birding Telescope, Field Guides and knowledge of bird song, wildlife identification, their physical signs and calls.

A daily list is maintained along with accompanying notes. A bimonthly accounting is published at EastView.

We have had our share of interesting birds migrating through our area this spring and fall. The accompanying lists are all the observed species that visited us this year. Those species in bold print were of interest because they came either during migration or are rare visitors. The list will also show how many months they were observed at EastView and in which year. If a bird was seen for multiple months, this means that an individual was seen at least once

each month. If a bird was only seen for one month, in most cases, it could have been seen only once in that month.

SPECIES		#MOS	YR
Great Blue Heron	-	7	13-14
Green Heron	-	3	13-14
American Bittern	-	4	13-14
Canada Goose	-	6	13-14
Mallard	-	2 2	13-14
Wood Duck	-		13-14
Pintail	-	1	14
Green-winged Teal	-	2	14
Black Duck	-	1	14
Hooded Merganser	-	2	14
Turkey Vulture	-	8	13-14
Red-tailed Hawk	-	5	13-14
Broad-winged Hawk	-	3	13-14
Kestrel	-	4	14
Merlin	-	1	13-14
Peregrine Falcon	-	1	13-14
Northern Harrier	-	8	13-14
Northern Goshawk	-	1	14
Cooper's Hawk	-	1	13-14
Sharp-shinned Hawk	-	3 1	14 14
Rough-legged Hawk	-	1	14 14
Osprey Killdeer	-	4	
Ring-billed Gull	-	4 5	13-14 13-14
(Rock Pigeon)	_	12	13-14
Mourning Dove	_	12	13-14
Great Horned Owl	_	2	14
Snowy Owl	_	ī	14
Barred Owl	_	ī	13
Common Nighthawk	_	1	14
R-thr. Hummingbird	_	5	13-14
Belted Kingfisher	_	3	13-14
Downy Woodpecker	_	11	13-14
Hairy Woodpecker	_	7	13-14
Pileated Woodpecker	_	1	14
Northern Flicker	_	2	14
Eastern Phoebe	-	6	13-14
Eastern Kingbird	-	4	13-14
Eastern Wood-Pewee	-	2	13-14
Olive-sided Flycatcher	-	1	14
Blue Jay	-	4	13-14
American Crow	-	12	13-14

SPECIES	#MOS	YR
Fish Crow -	1	13
Common Raven -	11	13-14
Barn Swallow -	4	13-14
Tree Swallow -	4	13-14
Rough-winged Swallow-	1	14
Purple Martin -	1	14
Chimney Swift -	1	14
Black-capped Chickadee -	7	13-14
Tufted Titmouse -	6	13-14
W-breasted Nuthatch -	4	13-14
House Wren -	1	14
Carolina Wren -	1	13
Golden-crowned Kinglet-	1	13
American Robin -	9	13-14
Eastern Bluebird -	12	13-14
Northern Mockingbird -	1	14
Cedar Waxwing -	3	13-14
(European Starling) -	8	13-14
Yellow Warbler -	1	13
Yel-rumped Warbler -	2	13-14
Orange-crowned Warbler -	1	13-14
Palm Warbler -	1	13
Common Yellowthroat -	2	14
Northern Cardinal -	2	13-14
Scarlet Tanager -	1	14
American Tree Sparrow -	1	13-14
White-throated Sparrow -	2	14
White-crowned Sparrow-		13-14
Fox Sparrow -	1	14
Dark-eyed Junco -	5	13-14
Song Sparrow -	7	13-14
Savannah Sparrow -	7	13-14
Field Sparrow -	2	14
Lincoln's Sparrow -	3	13-14
Clay-colored Sparrow -	1	14
Swamp Sparrow -	1	13-14
Chipping Sparrow -	5	13-14
Red-winged Blackbird -	6	13-14
Brown-headed Cowbird -	4	13-14
Common Grackle -	3	13-14
Baltimore Oriole -	1	14
American Goldfinch -	12	13-14
Purple Finch -	1	14
House Finch -	9	13-14
Common Redpoll -	1	14

 SPECIES
 #MOS
 YR

 Snow Bunting
 1
 14

 (House Sparrow)
 9
 13-14

TOTAL SPECIES 2014 - 84

TOTAL SPECIES 2013-2014 - 90

Species in () are NOT indigenous to North America.

BIRD BOXES

There are approximately 18 bird boxes and one Purple Martin pole with gourds on campus. Bluebird Boxes: These bluebird boxes generally were made for Bluebirds. However, only 9 have the required pole height and predator baffle in place. Of the 14 boxes only 8 were accurately monitored, although the others were noted from time to time. The Purple Martin Pole and accompanying Gourds were also monitored.

When there were residents in the bird boxes and gourds there were basically three species:

Tree Swallow Eastern Bluebird House Sparrow

Of the 8 boxes monitored, 7 nests were counted and two boxes were empty. One box had a House Sparrow nest.

Two of the 6 nests were Eastern Bluebird and they were successful raising 3 young in one and 2 in the other box.

The other 4 nests were of Tree Swallows, or Tree Swallow attempts. Three nests were successful and one failed.

Of the 3 successful nests, one nest left a single young, which died after three others had left the nest.

Generally, the success rate was higher then expected probably due to the location of the boxes around a retention pond and the wide-open fields in the vicinity.

The one negative aspect of where the boxes are situated is the constant, and sometimes heavy, gusty wind from the southwest.

The **Purple Martin Gourds** had 4 nest attempts. Two failed European Starlings, 1 failed House Sparrow and 1 successful Tree Swallow. The gourds were visited by three Purple Martins toward the end of the season. It is hoped that this visitation will bode well for 2015.



Painted Lady, Vanessa cardui Photo © Dick Harlow

EastView 2014 Butterfly, Damselfly and Dragonfly Summary

EastView is situated in an area that once was a field, meadow, and wetland. Consequently, to make the property functional for humans, much construction and change of the landscape had to be made. That being said, we now have man-made retention ponds next to old wetlands, wet meadows, fields and agricultural land. All this is good wildlife land and it is in our backyard and next to our community. This will bring a myriad of organisms, pioneer organisms initially that look to occupy space before more dominant organisms move in. This change in dynamics and ecological view is a privilege to watch and a boon to science, even though it is on a small scale.

The unique aspect of this year with butterflies is the number of times the Giant Swallowtail came to EastView gardens. Normally, a native south of Vermont, the Giant Swallowtail has begun to make Vermont its northern home since 2010.

Whenever one looks at data on a daily basis, it is hard to keep one's perspective, especially when you hear that a species has a population problem, or is in dire straights, or Vermont is its northern most range. But when the data is put on a spread sheet and analyzed by month and by week, truly, I think a more accurate idea emerges about what is going on with a species that has been observed in a particular area. What are impressive about this year's butterflies are the consistent 4 month and 7 week sightings of the Giant Swallowtail, and the 3 month and 7 week observations of Monarchs. Keep in mind that the Giant Swallowtail is more of a southern butterfly and the Monarch had a huge population decline this past year. These results emphasize how important data are to understanding the reality of a species population condition locally. Also, Monarchs have a tendency to be more visual to humans in the fall of the year.

The numbers beside each species is the number of **months/number of weeks** observed at EastView.

The following are the 20 species of Butterflies observed at EastView in 2014.

Canadian Tiger Swallowtail	2/4
Black Swallowtail	3/4
Giant Swallowtail	4/7
Cabbage White	6/18 *
Clouded Sulphur	5/15
Orange Sulphur	1/1
Summer Azure	1/1
Eastern-tailed Blue	2/2
Great Spangled Fritillary	1/1
Pearl Crescent	2/2
Painted Lady	1/2
Red Admiral	2/3
White Admiral	1/1
Red-spotted Purple	1/1
Viceroy	3/9
Monarch	3/7
Eyed Brown	1/1
Common Ringlet	1/1
Silver-spotted Skipper	1/2
Juvenal's Duskywing	1/1



Citrine Forktail, *Ischnura hastate* Photo © Dick Harlow

Damselflies

Damselflies are small, demure, colorful and feed on very small insects. They are hardly noticed unless one flies in front of you and land on a flower or leaf, or you see it whimsically appear on some flotsam by the water's edge. Understand that Damselflies are difficult to identify without capturing them and discerning their reproductive apparatus.

The numbers beside each species is the number of **months/number of weeks** observed at EastView.

Four species of Damselflies were observed for 2014 at EastView.

Citrine Forktail 1/2
Eastern Forktail 3/7 *
Familiar Bluet 1/2
Marsh Bluet 1/1



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

Dragonflies

Dragonflies, are the hunters of insects, and in turn are hunted by bullfrogs. Swallows and flycatchers were also ever present at our retention ponds. Like swallows, dragonflies are the proverbial mosquito catcher. They feed on other insects and they, along with the swallows, will feed on the mosquitoes, flies and the like around bodies of water and over fields and meadows. EastView's retention ponds allow us the rare privilege of seeing some interesting and colorful Dragons of the sky!

The numbers beside each species is the number of **months/number of weeks** observed at EastView.

Eight species of Dragonflies were observed for 2014 at EastView.

Canada Darner	1/1
Shadow Darner	1/1
White-faced Meadowhawk	1/2
Slaty Skimmer	1/1
Twelve-spotted Skimmer	2/3
Widow Skimmer	3/5 *
Dot-tailed Whiteface	1/1
Common Whitetail	1/2

Mammal Review

The number of mammal sightings at EastView has been few in number; this is partially due to the immediate lack of cover, shrubs, and larger trees, and also due to the perceived constant daily activity of humans. Therefore, most of mammalian travel through our area is at night. However, mammals do leave evidence of their passing through our property when unseen, either through tracks, scat or parts of themselves left behind, such as hair, dead grassy areas caused by urine, padded-down grass for bedding places or hair and feathers left in grassy areas or on shrubs and trees. Some also are fairly vocal such as the barking of foxes or the nighttime howling of coyotes.

Yearly Observations

- White-tailed Deer observed in the fields and meadows adjoining EastView or on EastView property directly.
- Black Bear observed from EastView moving toward the Middlebury College Compost area.
- Eastern Coyote Grass beds in the meadow near the ponds, or howling at night signifies the Coyote.
- Striped Skunk by odor only.
- Muskrat two were observed investigating the Deer Meadow retention pond.
- Opossum and Raccoon night visits to gardens, prints left in soil and on water's edge.

- Eastern Cottontail Rabbit at least two observed on a regular basis as well as evidence of their nibbling's on garden plants.
- Meadow Voles observed in garden.
- Mice (either Deer, or White-footed) observed feeding on birdseed.
- Gray Squirrel in December checking out bird feeders.
- Domestic Cat observed as either a feral or domestic, hunting in grass near cottages.



American Bullfrog, Lithobates catesbeianus Photo © Dick Harlow

Reptile and Amphibian Review

The only observed reptile on EastView property was the Common Garter Snake, <u>Thamnophis</u> sirtalis.

Amphibians in our retention ponds begin activity in April and were very active during June and July, diminishing in August and September. Besides the Dragonfly and Damselfly activity, a rather large contingent of American Bullfrogs lives in the ponds. They make their presence known each summer by their loud croaking during the day. And, at night, the Gray Tree Frog, both older adults and the diminutive young, mask the Bullfrogs' evening tunes. These fellows enjoy serenading the cottages and Inn residents well into the evening until early morning. Enjoyment of their song, high decibel tones or loud basal croaking is not enjoyed by everyone, but certainly is a topic of conversation!

- American Bullfrog observed in retention ponds.
- Northern Leopard Frog observed on alga mats in retention ponds and in grass near retention pond.
- Gray Tree Frog singing around cottages, or young attached to the sides or screens of cottages.
- American Toad observed in gardens.



Prairiefire Crabapple, Malus ioensis laden with fruit Photo © Dick Harlow

Weather Summary Tidbits December 2014

December Total Precipitation: 93.9 mm or 3.7 inches Snowfall for December 2014: 555.4mm or 21.9 inches.

Highest wind for December was on December 25
Maximum Wind Speed and Direction: 33 mph/North
Average Wind speed for December 2014: 2.8 mph,
Dominate wind direction for the month of December: North

Total December Overcast Days: 19

All Measurements based on a 24hr clock for 31 days.

YEARLY PRECIPITATION REVIEW

Jan.-Dec. 2014

- Total Snow 78.7 inches
- Most Snow Month December
- Total Overcast Davs 128
- Most Overcast Month December
- Total Precipitation 38.6 inches
- Precipitation Days 111
- Month Highest Precept October
- Highest Wind 44 MPH
- Month w/Highest Wind July

WIND REVIEW

MON	MPH AVG		DAY	DOM DIR
JAN	<mark>4.8</mark>	41	26	SSW
FEB	2.7	34	13	N
MAR	1.9	29	14	NNW
APR	2.4	37	10	SW
MAY	3.3	35	16	S
JUN	2.4	27	24	s
JUL	2.7	44	8	s
AUG	2.0	29	12	s
SEP	2.1	27	11	S
ОСТ	3.5	31	8	N
NOV	4.4	39	2	S
DEC	2.7	33	25	N

OVERCAST DAYS REVIEW

JAN	-	14
FEB	-	12
MAR	-	10
APR	-	9
MAY	-	10
JUN	-	8
JUL	-	6
AUG	-	6
SEP	-	7
OCT	-	16
NOV	-	10
DEC	-	19