JANUARY 1-14, 2015 NATURAL HISTORY NOTES FOR EASTVIEW

By Dick Harlow

American Goldfinch

American Goldfinch, Spinus tristis, Winter Male
Photo © Dick Harlow

Ubiquitous, a common finch in our backyard, our North American canary, this fellow is a flashy American finch that graces us at our feeders. However, the ones we see at our feeders in the fall and winter look different from the ones we see in the summer. This fellow is a male. You can see black feather remnants of his black beret just over the eye and on the flat of the head along with a touch of yellow on the right shoulder under some light brown coverts. Also, notice the single large white wing bar. White wing bars go across the wing, not to be confused with the white edgings to the primary feathers.

Whereas, the female below is just a tad darker then she would be in the summer.

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American Goldfinch, Spinus tristis, Winter Female
Photo © Dick Harlow

The key to sex determination when Goldfinches are in their winter plumage is whether the black wing has two or one wing bar and whether the shoulder is yellow. You may or may not be able to see the shoulder. However, the yellow throat, common to both sexes, plus the few black feathers on the head would be enough to substantiate that it is a male.

On the other hand, the female should show two white wing bars, although the short wing bar closer to the shoulder might not appear at first glimpse as a wing bar. If the shoulder above this wing bar is not yellow, you are looking at a female. I have to admit that the yellow shoulder is not always visible and you have to look for the other clues as mentioned to aid in determining the sex of the individual.

Goldfinches have molted into their winter plumage by November and will retain that plumage until March. Fortunately, the American Goldfinch has the ability to change its feathers twice a year, once in the spring and once in the fall. Many bird species change their feathers twice a year, some however, only once. Those species that change feathers twice a year, will show a different coloration in the fall than in the winter, whereas other species don't seem to change their appearance at all. For example, Blue Jay, American Robin or Northern Cardinal appear the same after both spring and fall molts. Those species that do have a different coloration to their plumage can make it difficult to distinguish between fall and spring plumages for newcomers to birding, but it is all for a good reason.

A human would find it very difficult, almost impossible to constantly wear the same jacket or coat for a whole year. A bird, flying out and about in all kinds of weather, constantly preening and wiping daily waterproof oil on its feathers, would find that its feathers could get pretty grungy by years end. Thus, with grungy feathers it might not be able to find food or escape from predators. Therefore, I believe, evolution has given birds the chance to have two different coats of feathers or

plumages each year. It can be presumed that those species that had two feather changes during the year out-survived those species that did not.

Goldfinches are presently in their winter plumage, but come March and April they will molt their winter feathers and take on their colorful spring breeding feathers. The male will be bright yellow with his black beret and black wings, while the female will stay drab and cryptic.

Of course, the look of the spring plumage is much different for the male and only somewhat different for the female. Cryptic coloration is important for the female. Her job is to build the nest, lay eggs, rear young and stay hidden long enough for the young to fledge. Cryptic coloration is protection from predators. Therefore, the female's molted colors don't change as drastically as do the males.

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In January 2014, I did not see nor was I told of House Sparrows for the whole month. This year, House Sparrows have been visiting feeders. Come spring they will make a concerted effort to compete for nest boxes.

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In January 2014 we had our Red-tailed Hawk, 'JAYCO', hanging out by perching on the bird boxes stationed by the Deer Meadow Drive retention pond. On one occasion he was observed eating a rodent. Also, in January 2014 there were 2 Accipiters, (bird hawks), a Cooper's and a Sharp-shinned Hawk periodically checking the feeders for a meal. They would fly through the cottage yards trying in vain to catch one of the feeder birds.

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For the first two weeks of this year not one bird of prey has been observed and I can't give a reason. However, for good or bad the goldfinches, titmice, woodpeckers, chickadees, juncos and sparrows seem to be more comfortable associating our feeders with a secure feeding spot.

Simply said, all we can gather from this, so far, is that EastView, our newly constructed area in comparison to our surroundings, is developing into a standard for the local birds. When birds seem comfortable, and our plantings become more robust, we can depend on seeing different species to inspect our surroundings.

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Predictions of short-term weather events are hard and, although, sometimes slightly off the mark, it is what we depend on. Therefore, predicting climate change has become even more difficult. The variability of day-to-day weather, along with predicting what will happen for a season or year must seem benign to predicting climate change for a decade or more. 2014 became the warmest on record, primarily due to the warming oceans. However, over the long term, with certain parameters staying in place such as CO_2 emissions, I feel scientists can predict an overall scenario of what could happen to our climate. There are trends where scientists have determined that we as a country and as a continent have overall temperatures that are warming. The question now is will 2015 surpass 2014 for climate warming?

For example:

[1]"There is large variability from year to year, as first and last frosts are single night events, but the trend lines show that on average:

- The Last spring freeze has come earlier by 2.3 (±0.7) days per decade
- The First autumn freeze has come later by 1.5 (±0.8) days per decade
- The Freeze-period has decreased 3.9 (±1.1) days per decade
- The Growing season has increased 3.7 (±1.1) days per decade

These trends show that in the past forty years, the growing season for frost-sensitive plants has increased by about 2 weeks."

[1] **Climate Change in Vermont** by Alan K. Betts, June 2011 (edited 10/29/2011)

This is interesting data, but what is more interesting to me is that if we (the USA) do not cut our CO_2 emissions, we, at EastView, could by the end of the century, have a climate similar to Northwest Georgia! Even if the USA does cut emissions, our climate could still be similar to northwest Georgia if the rest of the world ignores cutting emissions. Some might not mind that, but if you were to think about it, consider all the other ramifications that will take place to our environment and the environment of the world! Vermont will see an end to the Maple Sugar business, world food shortages will increase, which will result in widespread famine. We will see a decrease in freshwater, animal and plant extinctions will increase. We will see wide population disruptions, wetter in some parts of the world, drier in others, rising sea water along the coast, which puts towns, cities and the hierarchy of our transportation system in jeopardy. Why should I care, I won't be around by 2065? But, in 50 years, my grandkids could very well be here!

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Red Cedar

Have you ever opened a cedar chest and smelled the delightful aroma of this aromatic wood? It is the wood of the Eastern Red Cedar, *Juniperus virginiana*. Notice that the genus name of Juniperus, is not cedar, but really a Juniper. Confusing? A cedar with the genus name *Cedrus* would be a true cedar. But, we also consider Juniperus, Thuja and the general term arborvitae as cedars. Atlantic White Cedar has the genus name *Thuja occidentalis*, a tree you would see a lot of along the Maine coast or inland in wet areas. And species of Thuja are commonly called **arborvitaes.** Yes, it can be confusing. However, cedars have some endearing qualities.

The Red Cedar wood acts as a deterrent against moths, thus the value of the cedar chest. The White Cedar has a non-rotting quality, which endears it to anyone wanting wood to last in weather, without the application of chemicals.

Eastern Red Cedar, *Juniperus virginiana*
Photo © Dick Harlow

What we call Eastern Red Cedar is really a juniper, *Juniperus virginiana*, a thick evergreen shrub that will grow in either poor or good soil. In good soil it can grow as tall as 60+ feet with a small trunk, only as wide as 30+ inches in diameter. But, it is not the lumber quality that I like about this plant, but its wildlife food value. The seed cones of the Red Cedar are berry-like, bluish to purple blue with a waxy covering. These berry-like cones are an important food during winter to many birds. So, whenever you see a Red Cedar tree or shrub, think of it as winter food storage for wildlife.

Unfortunately, 2014 here in Vermont was a poor year for the Red Cedar to produce berries. Many of the frugivore birds, (birds that eat fruit), such as bluebirds and robins, will be looking elsewhere for winter food stores. If you are walking along South Street this winter or early spring you might see some of these species and others feeding on the Crabapples that grace many front yards.

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Weather Tidbits

First 2 Weeks in January:

Snowfall: 105.0 mm or 4.1 inches

Precipitation: 9.6 mm or 0.5 inches

Precipitation: Includes rain and snowmelt.

Highest wind for this two-week period was on January 1, 2015

Max Wind Speed and Direction: 36 mph/South

Average Wind speed for this two-week period: 6.0 mph.

Dominate direction: South

Days with wind gusts 20-30 mph - 14

Days with wind gusts >30mph - 7

All Measurements based on a 24hr clock for 14 days.