



# Bird Notes

From Northeast Kingdom Audubon  
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## For Immediate Release

### Changing Colors

Do you remember... “The falling leaves drift by my window, the falling leaves of red and gold”...the popular song by Johnny Mercer (1947)? Leaves changing color always amaze me. To think that the sap I left behind in my maples last spring is flowing again, down into the roots, leaving the true colors of the leaves behind. Magic, isn't it? Some of our birds are changing their colors, too, with the help of internal chemicals. However, fall birds become somewhat less lovely as opposed to our trees becoming more brilliant. Here's what's going on.

Carotenoids in carrots, leaves and bird feathers, give us the reds, oranges and yellows. Black, gray, brown and tawny feather colors come from melanins. White feathers have no pigments, but other colors have a much more complex explanation. As light falls on a feather and bounces back to our eye, we see various colors in the spectrum that are either reflected or absorbed by the feather. The color change we see in birds at this time of year is called the postnuptial molt (replacement of feathers after the nest season). This is a gradual process so that the bird is has adequate protection, as well as flying ability. Most bird's flight feathers are replaced in an orderly sequence to assure that the bird can still fly about during the molt. They are referred to as eclipse plumage birds at this time. If you have ever seen a flightless bird, it was most likely a loon, grebe, swan, goose or duck. Before fall migration, certain feathers of these birds molt all at once, leaving them incapable of flight. Returning to breeding plumage generally takes place before they reach their nesting grounds and is called the prenuptial molt.

The key to all the color changes that we see around us can all be traced back to something very basic: light. Photoperiod or the length of daylight is always changing, second by second, minute by minute, always having some effect on plant and animal physiology and behavior. For example, people who are sensitive to shortening days may experience negative mood changes. When a bird's brain acknowledges the lengthening day, their reproductive organs respond and prepare them for breeding. When the days shorten, the reverse happens and triggers molting.

Color phases in birds are worth mentioning. These are independent of age, sex or season. There can be two or more color phases in birds. Some hawks, egrets, herons, bitterns and geese. One we know in Vermont, the snow goose, has a blue color phase.

I return to the song to paraphrase...“ I miss [the summer's birds] most of all, when autumn leaves start to fall”.

Happy Bird Color Watching!

Photo: Common loon in fall plumage  
Courtesy of : Birding Wiki



**Carolyn E. Boardman is a board member of NEK Audubon living in Brownington, Vermont. NEK Audubon is one of 8 chapters of Audubon Vermont and part of the National Audubon Society. NEK Audubon is a non -profit organization that encourages people to enjoy birds, wildlife and natural habitats through field trips, programs and publications. For more information about meetings, field trips and special events visit [www.nekaudubon.org](http://www.nekaudubon.org). Art work by Robin Rothman.**