

NATURE TALK by Nancy Bain

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THE COLOR YELLOW (OR RED, OR ORANGE)

Have you ever wondered about the present-day craze for luminous white teeth? I think I became aware of it around the 1990s when such whiteness became *de rigueur* for proper grooming. I recall a divorced family member once nixing a potential date because of the man's yellow teeth.

In that vein, I find it interesting to think of the color of bird feathers (although not teeth, which birds do not have) to attract mates. Ornithological research finds that female choice of mates drives male feather pigmentation. Carotenoids are one of three pigmentation sources (along with melanin and porphyrins) that give Yellow Warblers their bright yellow feathers, Cardinals their reds, and male American Redstarts their vivid orangish yellows. The theory is that females choose bright colors in males because the colors signal health, thus healthy progeny. *Living Bird* (Winter 2024) reports that "natural food sources high in carotenoids are also a rich source of antioxidants with immune-boosting properties." But Amur Honeysuckle (AHS) berries, a source of carotenoids, are considered "junk food for birds" because the berries are "high in sugar and low in essential fats and nutrients." A 2011 study in the journal *Ecology* found that "cardinals with access to honeysuckle berries in urban areas had brightly colored plumage, but those bright plumes didn't translate to higher reproductive rates." Thus, males with

bright colors via AHS berries may be giving false signals with regard to their vigor and vitality, perhaps imperiling the futures of many bird species.

A noteworthy 2018 study by Dr. Rebecca Adrian, of Monash University in Australia, however, found that “carotenoids themselves may play little to no direct role in key physiological processes in birds.” In other words, there’s more to the color yellow than just a berry. As Frank Edwin Egler (1911-1996), an American pioneer in the study of vegetation science and plant ecologist (a label that he eventually refuted because he believed that field of study to have greatly contributed to the wide-spread uses of pest control) said: “Nature is not more complicated than you think; it is more complicated than you CAN think.” When we look at a bird’s colors, we’re not looking at just a color but the result of evolutionary processes over eons that selected from many events to make a creature perfectly suited for life on Earth.

But keeping our birds colorful as well as healthy is a must. *Living Bird* emphasizes that cities small or large can play a part in conserving wildlife. One study found that “birds listed under the Endangered Species Act...can be found living in or migrating through 81% of urban areas.” One co-author of the study said even “small parks are beneficial” because migrating birds especially use them as stopover habitat for much needed “fuel”—not to mention adoring bird watchers!

So we cannot underestimate the importance of B-W Greenway properties, our own yards, or the city/county proper as wildlife habitat to ensure resilient and long-lived colorful birds. (BTW—as we plant our own yards with various native species, we must also continue to speak out—especially to public officials—against the homogenizing effects of leaf blowers, synthetic lawn and garden chemicals and grass-dominated yards.)

But beware the human ploy of flashing white teeth to signal a good mate. Like the colors of bird feathers based only on AHS berries, that signal may be very, very false.