

Take the Feather Quiz

Most bluebirders are familiar with the fact that the blue feathers on our beloved bluebirds are not truly “blue” (anyway not in a blue-pigment kind of way). The shade of blue we see on bluebirds is actually quite dependent on light refraction due to the shape of bluebird feathers.

There are many more interesting facts about bird feathers! I have developed this short quiz from information gleaned from one of my all-time favorite books: **Feathers: A Beautiful Look at a Bird’s Most Unique Feature**, by Stan Tekiela. Check out his website,

www.naturesmart.com, to purchase this spectacular book and others.

Regina Garr, Editor, *The Fledgling* (newsletter of the Missouri Bluebird Society)

1. The average small bird, such as a House Finch, has 1200 feathers. Larger birds can have ten thousand feathers or more.

How many different *TYPES* of feathers does every bird have?

A. six B. eleven C. eighteen

Answer # 1

1. Birds have **Six** different types of feathers. AND, you may be surprised how few of those feather types actually have to do with flight. They are listed and described on pages 23-35 of Mr. Tekiela's book on feathers, with a very helpful photo and diagram on page 34: Contour feathers, Down feathers, Flight feathers, Semiplume and Filoplume feathers, and Bristle feathers.

2. It is easy to distinguish between a male and female Northern Cardinal based on their plumage, but both sexes in other birds appear to look identical (like Chickadees, Doves, and Blue Jays). Birds also distinguish between the sexes based on plumage, so how do birds that look exactly alike distinguish between male and female?

Answer # 2

2. Well, the answer to this one lies in WHO is doing the looking! While adult birds of both sexes of some species may look to US to have identical plumage, we don't have "bird eyes". Most backyard birds have an extra cone in their retinas which captures ultraviolet light. While birds' feathers reflect the light spectrum we do see, they also reflect UV light, which we humans cannot see. Birds therefore have no trouble telling the boys from the girls based on plumage! An example given by author Stan Tekiela on page 63 of his book Feathers is that of Blue Jays. The large white patch on the wings of male Blue Jays reflect UV light—the females' wings do not. Visible to the birds, yet invisible to us!

[Here's a BONUS story indicating the importance of feather coloring and plumage markings. On page 74 of his book Feathers, Stan Tekiela relates a study in which a female Northern Flicker was captured during breeding season and black marks were glued to her face (mimicking the malar marks on male Flickers). When she was returned to her mate, he chased her away aggressively! When the black facial marks were removed from the female, the male's behavior returned to normal. Subtle differences in plumage appear to be very important!]

3. Which color of feather is strongest? A. Black B. Red C. White

Answer # 3

Black feathers are stronger. Melanin, which gives black /dark feathers their color, also gives them strength. Nearly all woodpecker species have black tails– which comes in handy since very strong tail feathers are needed for support as woodpeckers balance on trees and excavate cavities in the wood!

4. Backyard birds will fluff up their feathers to keep warm. How much is heat loss reduced when birds fluff their feathers for warmth?

A. 10% B. 20% C. 30%

Answer # 4

C. 30% When birds fluff their feathers to keep warm they are reducing heat loss by approximately 30%! (page 81, Feathers, by Stan Tekiela)

5. What special feature do Hummingbird feathers and Wild Turkey feathers share?

Answer # 5

Hummingbirds and Wild Turkeys (among other birds) possess some feathers which appear one color in one light and another color in a different light...a property called iridescence. Or, as author Stan Tekiela refers to it on page 60 of his book on feathers: “Shimmering Iridescence”! While the light refraction in the feathers of these two species may not be derived in exactly the same way, the iridescent results are equally gorgeous!

FYI: Please Note that special federal and state-issued permits are required to possess or collect feathers of any native wild birds.

