## **Bird of the Month**

By Ryan Crouse

Generally, going with your gut is a decent rule of thumb, but that instinct comes with experience. Even seasoned birders can make surprising mistakes. I once misidentified a rock squirrel as a small owl — yes, really. But often the bird itself is the source of the confusion. What do you do when a junco doesn't look like a junco? Or when a Swainson's hawk resembles some kind of falcon? And let's not even get started on female warblers or empidonax flycatchers!



What are these mystery birds? How do we figure them out? — Photos: Magdalena Richter

A wide range of factors can make bird identification difficult: gender, age, time of year, molt stage, plumage variations, genetic pigmentation mutations, time of day, temperature and lighting. Any of these can alter a bird's appearance, making it look nothing like the perfect, crisp image in your field guide.

Color is a good place to start. Take blue, for example. Unlike red or yellow, blue doesn't come from pigment. Instead, it's an optical illusion, a trick of light interacting with feather structure. Much like our sky appears blue due to the scattering of light in the atmosphere, microscopic air pockets and keratin structures in feathers scatter light to give the illusion of blue. This means that a bird with vivid blue plumage on a sunny day can appear gray or even black in the shade or on a cloudy day.

A great example is the blue grosbeak. These birds frequent Prescott's willow thickets in summer. In bright sunlight, their electric blue is unmistakable. But once they slip into shadowy undergrowth, their feathers can look more like deep gray or eggplant.

Even true pigmented colors can shift depending on lighting. The golden-hour sun of early morning or late afternoon casts a warm hue that can exaggerate or mute a bird's natural colors. A summer tanager in full sunlight might look almost neon red, but place it under the cottonwood canopy and it can appear dull orange. A yellow warbler may glow like sunshine or fade to a dull ocher depending on the light.

Temperature plays a role too. On chilly mornings, many birds bask in the sun, fluffing their feathers to trap warmth. This puffed-up posture makes them look larger and can expose feather layers or colors that aren't usually visible. Roadrunners offer a dramatic example. They turn their backs to the sun and lift their feathers to reveal a black underlayer that acts like a solar panel. This behavior, while fascinating, can throw off an ID if you're expecting their typical sleek appearance.

Gender and age are two of the biggest curveballs in bird identification. Let's explore a real-world scenario. Say you spot a red bird with a conical beak. Your field guide doesn't quite match: it's not a house finch; the beak is black. The bird makes a sound you don't recognize. Could it be a rare migrant? Possibly. Then a second bird appears. This one looks like a cardinal in shape, but its coloring is all wrong — mustard yellow with hints of red. You observe this second bird feeding the red one. Then it sings a familiar song — a cardinal's song! A quick flip to the back of your guide confirms it: female northern cardinal.

But what about the red one? Its black beak and muted colors are clues. A little digging reveals that it's a juvenile male cardinal. Like humans, birds don't transform from child to adult overnight. Depending on the species, it can take months or even years for young birds to develop full adult plumage. A juvenile may lack distinctive features like the adult's crest or bold colors. Some field guides do show juvenile illustrations, but even then, real-life variation can throw you off.

The takeaway? Bird identification is easy, till it isn't. There will always be birds that trip you up, no matter how much experience you have. The key is to consider all the variables: light,

angle, behavior, temperature, and context. Most of all, be patient. Watch the bird longer. Take notes. Snap a photo if you can. Over time, you'll get better at recognizing subtle clues.

So next time you're out birding and feel stumped, know you're not alone. Keep your eyes open, your field guide handy, and your expectations flexible. The mystery is part of the magic. Enjoy every moment of the chase.