

Facing the Digital Divide: Field Identification at the Crossroads

How has birding been changed by the technological revolution of the early 21st century?

Pete Dunne • Mauricetown, New Jersey • pete.dunne@njudubon.org

Tony Leukering's essay on identifying small passerines in flight (April 2015 issue, pp. 48–49) is poignant and timely not just because of the elements discussed but also for the revolution in bird study that it literally depicts but does not explicitly address. I am speaking about Sam Galick's supernatural image of the Black-and-white Warbler (p. 48, and again on p. 56) that is much the focus of Tony's article. Galick's photo illustrates the avocational changes that this new technology in image capture presents.

The fact is that no mortal has ever seen a flying Black-and-white Warbler with the frozen detail and clarity captured by Galick's image.

The human mind cannot stop a bird in flight. What the mind perceives is a series of impressions that we render into a composite image. Even if the warbler had been momentarily halted by a headwind, the wings would still have been beating and what our eyes and mind working in concert would have perceived would have been a blur, not the crisp, detailed rendering reproduced in the article. Today's fast-shooting, image-stabilized, DSLR cameras can achieve what our eyes and mind cannot. They can capture a detailed frozen image of a bird in flight that can be studied at leisure after the fact.

Today's cameras have opened the door to a revolution in bird identification—the second major instance in which technology has changed bird study. Consider that just over a century ago, the primary tool for bird study was the shotgun or fowling piece.

Dedicated students of birds, called ornithologists, used shotguns to collect birds in the field so that their defining details could be noted. The shotgun was the stop-action device of that age. The bird in hand could be studied, identified, and then rendered into a study skin both for future study and as a

means of securing verifiable evidence, one of the cornerstones of science.

But in the late 1800s, advances in optical technology made it possible to offer nearly in-the-hand views of stationary living birds from a distance. If mere identification was the objective, there was no longer need to collect the bird. Verification remained a sticking point, but by the early 1900s field glass ornithology was augmenting, even supplanting, shotgun ornithology. Optics also opened the door to a whole new avocational offshoot. The result was a class of people who wanted to enjoy and identify real birds in real time in their natural setting. These were known as students of birds, later called bird lovers, then bird watchers, then birders.

While optics have improved and skill levels have grown, there is still a physical limit to what the human mind and eye can apprehend in the field in real time.

In his analysis Leukering allows that on more distant birds the bold plumage pattern of the Black-and-white Warbler homogenizes, creating the “impression” of a grayish-blue bird. In my experience with birds in flight, this homogenization occurs at close range too.

Am I saying that small birds cannot be correctly identified in



Overheard at the dike at Higbee Beach, Cape May County, New Jersey: “Black-and-white Warbler!” Photo by © Sam Galick.



Overheard at the dike at Higbee Beach, Cape May County, New Jersey: “Black-and-white! . . . woodpecker.” Photo by © Michael O’Brien.

flight? Absolutely not. As Leukering readily admits, small birds in flight offer an array of differentiating hints and clues, related to overall shape, the shape of individual features (like the bill), flight style and “posture,” and of course plumage characteristics. Passerines in flight are an exciting challenge and one of the frontiers of bird identification.

All I am pointing out is that what birders using 150-year-old technology (binoculars) perceive is less than the frozen supernatural renderings captured by the DSLR camera and analyzed in Leukering’s excellent article. It is also why a growing number of birders armed with DSLR cameras have adopted a “shoot first, identify later” approach to bird ID, referring to the camera’s viewing screen while the living bird recedes.

My question: But is this field identification? It is most certainly bird identification, but doesn’t it bring bird study full circle and back to collecting specimens and identifying birds after the fact? How long is it going to take before someone invents a

computer program that will identify a bird’s image as easily as change machines decode a one dollar bill today? Such a technological advance would make field identification as archaic as adjusting a carburetor, or tamping the charge on a fowling piece, or hand tinting lithographs.

Maybe it’s just me? Maybe I’m the only one who cannot formulate a frozen image of a bird in flight and note plumage traits down to those relating to age and sex? No, I suspect I am not alone in this regard. If freeze frame were one of the human brain’s function modes, then so many skilled birders wouldn’t be plopping money to buy the latest, fastest shooting DSLR cameras. And after more than a century of advances in field identification, the flight identification of small passerines would not at this late date be a subject worthy of the horizon-pushing mind of Tony Leukering.

Thanks, Tony, for the thoughtful, evocative, and timely article. I’m confident that, in due course, it will be regarded as a pivotal piece in the evolution of bird study.

Don Freiday • Cape May, New Jersey • peregrine43@hotmail.com

I read with great interest “A Black-and-white Warbler in Flight” (April 2015 issue, pp. 48–49), in which my good friend and frequent field companion Tony Leukering dissects Sam Galick’s excellent photo of a flyby Black-and-white Warbler at the Higbee Dike in Cape May, New Jersey. (We miss you in Cape May, Tony!)

Identifying flying passerines can be hard as hell, and mistakes are part of the game. I submit as evidence the fact that nearly every great birder I know who has stood on the Higbee Dike trying to ID warblers flying by has, at one point or another, called “Black-and-white!” on a bird that, on careful inspection (in the split second you have to inspect flyby birds) turns out to be a Downy Woodpecker. True, many of these IDs are self-corrected—it’s a rare flight in September when someone doesn’t call out “Black-and-white...woodpecker!” This is not the kind of mistake expected with the sighting of a perched bird by an experienced birder.

One of my favorite things in the whole world is to stand on Cape May’s Higbee Dike on an early-fall morning and try to make sense of the waves of warblers and other passerines in morning flight. I’ve done this both recreationally and as an occasional fill-in migration counter for many years, standing shoulder-to-shoulder with some great birders and otherwise great people as we take on this supremely difficult and fun birding challenge. Even when we can’t identify the birds, we still thrill to the spectacle.

I think Leukering hits a birding nail on the head when he asks why birders often stop watching a passerine once it takes off, or don’t bother to try to track one spotted in flight. While leading many field trips at Cape May and elsewhere, I’ve exhorted people not to “give up” on a bird in flight. It may not be the look we want, but it may be the only look we’re going to get, so let’s see what we can do with it. Anywhere you’ve got a bit of open sky, coast to coast, you will have chances to identify landbirds in flight, especially during migration.

Leukering’s article does a great job revealing virtually all the potential field marks of a Black-and-white Warbler. Which is to be expected. Read something Leukering writes, or listen to him in the field, and you are going to learn something.

But... The proper way to test our skills on Galick’s Black-and-white Warbler photo is to have someone hang the April 2015 issue of *Birding* out the window of their car while they drive by at 35 mph, at least 40 yards away, possibly backlit by the rising sun. Nobody is aging flyby Black-and-white Warblers based on the shape of their primary coverts, and nobody is identifying them based on the length of the white spot on the fifth rectrix. This can be done on a good photo, but not in the field. Leukering knows this, and in the second half of his article he reviews the field cues that *can* be used on flybys.

The point is, we are trying to make clean IDs on birds we often see neither cleanly nor for long. How to deal with this?

First, know the perched bird cold. One of the reasons we

can't identify warblers, vireos, orioles and other birds “of the land” in flight the way we can ID hawks or swallows in flight is simply that we don't see landbirds in flight often enough. Hawks and swallows fly around a lot, they glide and soar, they give us a chance to work on them for a long time, and practice on the next one, and the next one. It's pretty rare to see a Black-and-white Warbler in sustained flight, at least outside of Cape May in fall. So the best shot the average birder has at identifying a flyby passerine the first few times is to use its “normal” plumage-based and gross-morphology-based field marks. It often feels like you have no time to think or process what you are seeing on a small flying bird, so the more solidly its field marks are embedded in the front of your brain, the better chance you have to pick up on them in flight.

(There's a wonderful benefit to trying to identify landbirds in flight: The perched ones soon become ridiculously easy! You get so quick and good at grabbing and processing field marks, and know them so well, that suddenly you're nailing Bay-breasted vs. Blackpoll Warblers without looking at their feet.)

Next, get very, very good with your binoculars and your eyes. Think quick and clean. When I try to pin names on little flying birds after a long absence from the field, I feel like a duffer, because I am one. My eyes have spent too long looking at computer screens and the pages of *Birding* magazine, and my hands haven't spent enough time wrapped around my Zeiss 8x42s—one of the tools of choice for this stuff. Believe it or not, there is a degree of physical skill involved in this form of birding. One very good option for some situations is to skip the binoculars altogether, favoring a good naked-eye look over a poor look, or no look, with the bins.

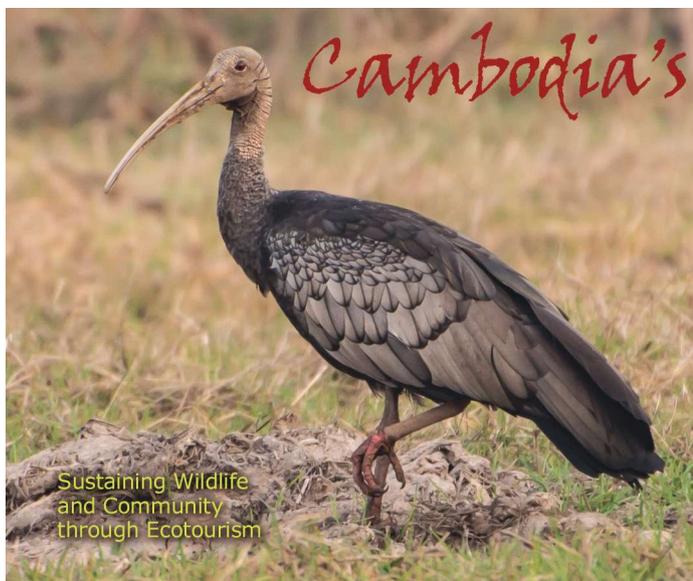
Once you or someone you trust has identified a flying bird, I

suggest staying with it as long as you can. You can do this two ways. One way is to have a list of questions in your mind, and start asking them. How big is it? Can I get anything on the bill? How long is the tail? Is the bird undulating, jinking side-to-side, or flying straight? Is it steady and strong or being buffeted by the wind? Can I really get the wing shape with wing-beats so rapid, and if I can, what is that shape? Is it calling? And of course, what colors and patterns do I see, and how do they change as the bird gets farther away?

The other way to study a known flyby is to...just watch it. Let the wind whistle through your ears, and let your brain figure out on its own how you will know this bird the next time it flies by. Build a search image, a recognition image. This way, the next time you see this species you may have an instant hypothesis as to its identity. Of course, one should test this hypothesis with hard field marks to confirm it.

Learn flight calls. Some flight calls are diagnostic, but others are only suggestive, at least to my ears. Regardless, it is extremely helpful when identifying a bird to know what it is *not*. So if you naked-eye a warbler coming out of the trees and it offers a *zeep* (a thin buzz of a flight call), you can stop considering Cape May Warbler or Northern Parula and start focusing on what you can see to clinch Blackpoll, Bay-breasted, or Blackburnian.

Finally, stay within your limits with this stuff. As Leukering says at the end of his article, know when to leave a bird unidentified. I once suggested that we do an experiment where someone identifies flyby landbirds with binoculars while another observer tries to get confirming photographs to assess the accuracy of the IDs. The very best birder I know said, only half-jokingly, “I want no part of that experiment.”



Sustaining Wildlife and Community through Ecotourism

Winged Wonders

From Bengal Floricans to Giant Ibis, or White-shouldered Ibis to three critically-endangered Vultures, or a Cambodian Tailorbird, a trip to Cambodian Bird Sanctuaries is an experience of a lifetime! With trained local guides leading the way, each birding adventure supports the local communities and gives back to wildlife conservation programs.

For more information, visit us at www.samveasna.org or email us at info@samveasna.org

