Let's Go Birding!
Ted Floyd
Photos by
Bill Schmoker
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The American Birding Association Code of Birding Ethics—Section 1

Everyone who enjoys birds and birding must always respect wildlife, its environment, and the rights of others. In any conflict of interest between birds and birders, the welfare of the birds and their environment comes first.

1. Promote the welfare of birds and their environment.

1(a) Support the protection of important bird habitat.

1(b) To avoid stressing birds or exposing them to danger, exercise restraint and caution during observation, photography, sound recording, or filming.

Limit the use of recordings and other methods of attracting birds, and never use such methods in heavily birded areas, or for attracting any species that is Threatened, Endangered, or of Special Concern, or is rare in your local area. Keep well back from nests and nesting colonies, roosts, display areas, and important feeding sites. In such sensitive areas, if there is a need for extended observation, photography, filming, or recording, try to use a blind or hide, and take advantage of natural cover. Use artificial light sparingly for filming or photography, especially for close-ups.

1(c) Before advertising the presence of a rare bird, evaluate the potential for disturbance to the bird, its surroundings, and other people in the area, and proceed only if access can be controlled, disturbance minimized, and permission has been obtained from private landowners. The sites of rare nesting birds should be divulged only to the proper conservation authorities.

1(d) Stay on roads, trails, and paths where they exist; otherwise keep habitat disturbance to a minimum.

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The Mission of the American Birding Association:
The ABA aims to inspire all people to enjoy and protect wild birds.

Foreword

Few birders cannot recall *that bird*—the one that sparked their interest, that caused a conversion so passionate that, for many, it has no equivalent in intensity in their lives. For me, it was a migrant Scarlet Tanager perched in a crape myrtle. The bird watched me from five feet away, inquisitive but motionless, and I held my breath in awe, unable to move until my limbs seemed to carry me back into the house, calling for my parents to come see this magnificent bird, whose likeness I knew from Zim and Gabrielson's little book *Birds*. That was in 1971, and I was six. Since that moment, no day goes by that I don't watch birds in some fashion, and hardly a week passes that I don't have some moment that echoes that first undoing.

If you have picked up this booklet, it is probably because you too have seen "that bird" and are wondering what comes next. You could not have come across a more wonderful resource. Here, with inimitable verve and focus, Ted Floyd conveys not just the enthusiasm that maintains us in lives of birding but the erudition that grows as we build and refine our skill as birders. Rich in wise counsel and understanding, this pithy text is part manifesto, part mantra, part mentor. "It all adds up," he writes. "Every experience in the field contributes to your skill as a birder, [and] each experience in the field, all by itself, is a special moment, an escape from life's routine, an encounter with beauty." Ted gives us a vision of life in which our senses and faculties are challenged, sharpened, and united, a life in which we are scientist, artist, and worshipper simultaneously. This is unmistakably *American* birding, distilled to its essence—the legacy of Emerson, Thoreau, Muir, Mayr, Peterson, Carson, and millions more who find fascination and solace in the lives of birds.

As you continue your birding odyssey, this little book will guide you toward practices that will enrich your experience of birds—and toward patience, curiosity, and courage, hallmarks of the happiest among us. After a few years, look back on this book, and you'll realize your great fortune in having picked it up today.

Happy birding!

— Ned Brinkley

Former Editor, *North American Birds*

Black-capped Chickadee

We humans have a deeply felt connection with the natural world. It's in our genes. Seriously. Biologists and anthropologists believe that human beings are intrinsically responsive to the workings and rhythms of nature.

For almost all of human history, it was impossible for us not to connect with nature. We hunted wild animals and gathered up the harvest. We sought shelter from storms. We mastered the elements—fire and water; then stone and iron; in due course, even x-rays and electrons. Along the way, we marveled at what we beheld in nature's realm. We wrote epic poems, we handed down oral traditions, we constructed whole religions that revolved more or less around our relationship with nature.

Fast forward to the present day.

Yes, it is possible to bypass the natural world in our workaday routines. But most of us would rather not. Most of us perceive a deeply felt *need* to connect with nature. We cannot help ourselves. We see the stars at night or fall foliage or the morning dew, and we are overcome by feelings that are beyond our control.

"One touch of nature makes the whole world kin," said Ulysses to Achilles in Shakespeare's play *Troilus and Cressida*, and so it is today. We're all in this thing together. We discover a rainbow, and we run inside to tell our friends. Perfect strangers pause to chat about a sunset or a snowstorm. Whatever our differences, we find a common bond in our deep-down responsiveness to nature.

Birds are everywhere to be found. Even in America's biggest cities, you can see more than 100 bird species during the course of a year.

In this modern world of ours, we long to become reconnected with the natural world. But how do we achieve that? In our cities and suburbs, where most of us live, it is easy to get sidetracked or disillusioned. Understandably, we begin to withdraw from nature's realm. After all, nature is "out there" and we're stuck *right here*, in our office cubes and cookie-cutter homes.

Don't believe it. Not for a second. It's not true.

No, you won't find wolves in most American cities, but check this out: *America's cities are brimming with birdlife*. That's true of our suburbs and farmlands, too. Birds are everywhere. Not just sparrows and pigeons. Most American cities are home to literally *hundreds* of bird species. Rare birds. Beautiful birds. Absolutely spectacular birds. New York City's Central Park is the place to be if you want to see warblers on spring migration: a dozen or more species per day, each one more ridiculously colorful than the last. Chicago is the site of a "Magic Hedge"—which has possibly yielded more rare birds per acre than any other place on the continent. And Los Angeles County was the first county in the United

States to attain the once-unthinkable threshold of 500 bird species.

Birds are everywhere to be found—no matter who you are, no matter where you live. But where do you find them? How do you learn their names? How do you discover information about their behavior and ecology?

Those are some of the questions set forth in the pages that follow. Think of this little book as your personal guide for exploration and self-discovery. We'll ask the questions together, but we may arrive at different answers. Customize the material to suit your own agenda. But let's not lose sight of the big picture. Let's not forget what got us so fired up in the first place: the shared desire, the shared longing, even the *need*, to reconnect with nature.

Let's do it. Let's get started. *Let's go birding!*

Getting Started

Here's an obvious problem. In most places in North America, well over a hundred bird species can be found during the course of a year. And most "field guides"—pocketsize references for bird identification—contain information on at least *five* hundred bird species.

It's hard to know where to start. You see a streaked brown bird on your front lawn, and you soon discover that dozens of species in your field guide match the description. Or you glimpse a black-and-yellow bird in the woods behind your house. It looks distinctive—until you consult your field guide and realize the bird could have been a goldfinch, an oriole, a tanager, a warbler (there are *lots* of species of warblers), or something else. One more scenario: You see a bird at a nearby fishing pond, and you are absolutely certain that it is a gull (or "seagull"). Identifying it to species proves challenging, though. That's because gulls vary greatly in appearance from individual to individual—so much so that differences *within* a species may be greater than differences *among* species.

Purple Finch (left), **Pine Warbler** (center), **Ring-billed Gull** (right).
How do you identify them? It has much to do with outlook and attitude.

Relax.

We'll get there. We'll learn about methods for identifying the streaked brown bird on the lawn, and we'll figure out how to sort among the many black-and-yellow birds that inhabit our woodlands. In due course, we'll discover techniques that can be applied to even the thorniest of bird identification problems—distinguishing among the various gull species, for example.

First, a key point about bird identification. Maybe it is *the* key to bird identification. If bird identification were an exact science, maybe we would refer to this key point as "The Fundamental Theorem of Bird Identification." *The key is to start with birds of known identity.* Start out with a bird species that is both familiar and distinctive.

Start with the robin.

The American Robin (*Turdus migratorius*) is widespread, being common to downright abundant in much of its vast North American range. Chances are, you have access to robins within easy walking distance of your front door. The American Robin occurs year-round in most of the United States—from Seattle to Boston, from Los Angeles to Atlanta. Farther north, throughout Canada and Alaska, it is common in spring, summer, and fall. And in a few places in the southern United States, the species occurs primarily in the winter. You have almost undoubtedly made the acquaintance of a robin in the past year.

By and large, the adult American Robin is unmistakable. Adult males are especially distinctive. The robin's basic color scheme—uniform brick-red underneath from the throat all the way down to below the legs, uniform gray-brown above from head to tail—is unique. If it looks like a robin, it *is* a robin. Moreover, it is in all likelihood an *American* Robin, the one and only robin in the U.S. and Canada except for a few rare—and rarely seen—tropical robin species that barely range into the borderlands of extreme southern Texas and the Southwest.

Now we come to a critical juncture in the bird identification process.

Now is the time to get to know the robin. It is well worth the effort to get to know the American Robin *really well*. Of course, there is the temptation to move on, to crank it up a notch. You've figured out the robin (gray-brown above, brick-red below), and it is natural to want to turn to new challenges: the streaked brown bird, the black-and-yellow bird, even the lookalike gulls at the neighborhood pond.

But let's not do that quite yet. Let's linger with the robin. Let's do something that, strange to say, many veteran birders have never done. Let's look at a robin.

Leave your binoculars in the kitchen window. Leave your field guide behind, too. (Don't worry. We'll find use for them soon enough.) Now go find a robin. If it's spring, maybe there's one caroling from the neighbor's roof. During midwinter thaws, look for the birds wherever there is open ground: lawns, schoolyards, golf courses, and so forth. In winter, you might find a tight flock in the tangle of ornamental shrubs at the end of the street. In the warmer months, robins tend their distinctive nests—constructed of mud and grass, unkempt yet sturdy, and often placed in plain view under eaves or lampposts. At any time of the year, you might see robins in flight; they could be making the short-distance trek from one fruiting tree to another, or they could be engaged in sustained migration hundreds or even thousands of miles in extent.

Now what?

Just stand there. Don't move. Just stand there and watch. And listen. Take it all in, with your eyes and ears, with your brain and even your heart.

In a sense, you're now an expert. Of course, your field skills are nowhere near those of the advanced observer's. And then there's the matter of ornithological knowledge: Superb field skills can be acquired in several years, but it requires a full decade or more to acquire the knowledge base of the expert. Nonetheless, you are an expert in the most important sense of all: Your mindset, your outlook, your basic approach are the same as the expert's. The expert birder is constantly observing, always noticing, forever paying attention.

That's easy to say, but it's not the obvious thing to do. Birding guru Kevin Karlson puts it this way:

> During my first 24 years as a birder, I identified many American Robins. But I never really *looked* at one. Recently I spent a year observing robins in the yard and concentrated on subtle details of impression, with an emphasis on overall body shape, both on the ground and in flight. I also tried to absorb the robin's "essence" by studying nuances of movement and body language.

Unfortunately, our turbo-charged, razzle-dazzle culture often gets in the way of the patient study that Karlson advocates. But there's a felicitous flip-side to the preceding: Our basic human nature endows us with the skills, the wisdom, and most of all the mindset to become expert birders. All we need to do is turn off the television and power down the computer. All we need to do is step outside, smell the flowers, and look for robins. In no time at all, we'll learn to let go and trust our instincts. And after a while, the most wondrous thing will happen: We'll discover anew a sense of wonder for the natural world.

Pop Quiz

Stop reading this little book right now. For real. Stop reading and go outside. Try to find an American Robin out there. If a robin's not available, find another common bird species: a Northern Cardinal if you live in the East, a Black-billed Magpie if you live in the Northwest, a Greater Roadrunner if you live in the Desert Southwest, a Mallard if you live anywhere near open water.

Leave your binoculars and field guide behind. You already know to do that. But don't go into the field completely empty-handed. *Do* take the following with you: a notepad and something to write with. Find your bird—a robin, ideally—and write down ten things about it. Think big, think broad. Don't limit yourself to descriptions of the bird's color and patterns. Describe the bird's size and shape, its vocalizations, its movements and other behaviors, its habitat, or anything else you notice. Feel free to ask questions: What does this bird eat? Where does it spend the winter? How many of them breed in the neighborhood? How many of them are there in the world? How many of them will there be fifty years from now?

By completing this exercise, you'll get maximum performance out of this book. Really *looking* at a robin, the way Kevin Karlson does it, requires some amount of work. More to the point, it requires a readjustment in our thought processes. We go from being passive bystanders to active observers. And here's the good news: After a while, it becomes

second nature.

Now put down this book, go outside, find a robin (or some other familiar bird species), and complete the exercise. Have fun!

Welcome Back

Hope you had a pleasant excursion out there. Lesson learned: Time spent outdoors, "in the field," is almost always better than time spent anywhere else. What else did you learn when you were out in the field? If you saw a robin, did you notice some "field mark" you'd never before picked up on—the white tail corners perhaps, or maybe the beautiful orange wing linings? Did you hear a vocalization—maybe a nervous chuckle or a piercing whistle—you'd never before known about? Did you notice plumage variation among birds, with some being brighter and more colorful than others? Most of all, did you find yourself wanting to learn more?

If you answered yes to those questions, especially the last question, give yourself an A. You've already acquired the mindset, the outlook, of an expert. That was the hard part. It really was. As noted previously, many veteran birders never get to the point of *really looking* at a robin. The rest is comparatively easy: We'll discover some key resources, learn about a few tools, and explore several basic methods for becoming a better birder. It will take a little while, but it's pretty straightforward stuff.

We'll keep things simple by treating the topics one by one. That's a bit artificial, as most experts will

It is worthwhile to study the common birds really hard. Lessons learned from the **American Robin** can be applied to many other bird species.

tell you that birding is fundamentally integrative. So be on the lookout for linkages and commonalities among the topics that follow. Even if they're not explicitly identified in the text, they really are there.

One last thing: No more robins! As we discover the resources, tools, and methods for becoming a better birder, we'll meet dozens of other bird species. To this end, it will be helpful—essentially, really—for you to have a field guide at hand. *The Smithsonian Field Guide to the Birds of North America* is recommended, for the simple reason that the same guy wrote both that field guide and *Let's Go Birding!* There's a special synchronicity between the two books. That said, any field guide to the birds of North America should work just fine. Anyhow, have a field guide handy for the rest of our time together. And always be willing to step outside and put the tips laid out in this book into actual practice.

Start Simple

How do you tell that somebody is a birder? If the person is wearing a floppy hat, speaking in hushed tones, and walking quietly along a woodland trail, it's a good bet you've found yourself a birder. The clincher, of course, is the pair of binoculars hanging from the person's neck.

It's easy to imagine that binoculars are essential for birding. They have their uses, no question about it, but binoculars are also terribly *over*used by many birders. Binoculars allow us to focus in on details that might otherwise be undetectable—a flycatcher's eye-ring or the wing pattern of a bunting. That's great. But focus comes at a cost: We lose context, we lose perspective, we lose sight of the big picture.

Certain birders, it seems, have their binoculars mechanically riveted to their eye-sockets. And those birders, more often than not, fail to pick up on behavioral and habitat cues that can be essential for identifying a bird correctly. Those birders may ignore or misinterpret a bird's size, shape, and "body language"—subtle but often diagnostic field marks. In fact, they may fail to get a good read on a bird's basic colors and patterns.

Some binoculars are technological marvels, plain and simple. (Such binoculars tend to cost a few thousand dollars, too.) But check this out: Your binoculars are *never* better than your eyes. Never. When you look through even the highest-quality binoculars, you lose a little bit of lighting; you pick up some chromatic aberration; depth of field decreases; and so forth. It's simple physics.

To get the absolute best view of a bird, look at it with the naked eye. Educator and provocateur Ted Lee Eubanks refers to this technique as "bare-naked birding." Give it a whirl. Here's how: Find a bird at or near the top of a reasonably distant tree, and, once you've spotted it, *stay where you are*. Don't get any closer to the bird. Don't sneak a peek through your binoculars. Stay where you are, and look intently at the bird. Do you know what it is? How can you tell?

First off, lots of birds—indeed, the majority of bird species—are never going to be found at or near the treetops. You have no chance of seeing a Virginia Rail or Pied-billed Grebe in a treetop, and you have essentially no chance of seeing a Canyon Wren up there, either. Those are perhaps obvious examples, but a lot of other birds—birds

that are generally found in and around woody vegetation—are unlikely in the treetops. Most warblers are tree-lovers, but many warbler species stick to the forest's shrub layer and undergrowth. Wilson's, Kentucky, and Worm-eating Warblers, for example, are more likely to be seen at or near eye-level than in the treetops.

Back to the bird that *is* in the treetop. What is it doing? Is it at the absolute top of the highest dead branch? If so, it may well be an Olive-sided Flycatcher. Does it fly straight up, then zigzag around for a while, then turn abruptly, then return to the exact same perch? Such behavior is especially characteristic of the Olive-sided Flycatcher. Even at a substantial distance, this midsize bird can be provisionally identified by its habit of sallying up from a dead branch in the treetops.

Don't look for a **Canyon Wren** in the leafy treetops. This species is restricted to cliffs and rimrocks, often with a sandstone component.

Even at a great distance, the **Olive-sided Flycatcher** is recognized by its habit of perching at the tip of the highest dead branch in a tree.

Many other birds have behaviors that are more readily observed by the method of bare-naked birding than by detailed analysis through binoculars. Examples: the *start-stop-start* movements of a Killdeer running across a schoolyard; the oddly slow foraging behavior of a Plumbeous Vireo; and the straggling along of a flock of Bushtits flushing from one shrub to another.

Now can we look through our binoculars? Not yet. Now that we've made a provisional identification based on behavior, let's see how much plumage and structural detail we can actually see. This exercise can yield pleasantly surprising results. Remember, our eyes are better than the best binoculars.

On the Olive-sided Flycatcher, look for the erect posture and big head. On the Killdeer, note the telltale double breast-band, but also note the face pattern; it is readily discernible at some distance. On the Plumbeous Vireo, check out the overall color and contrast; that's essential for separating this species from the lookalike Cassin's Vireo, and color and contrast may well be distorted through binoculars. And on the tiny Bushtit, even though this may sound ridiculous, try to make out eye color; if you wait patiently, the

Try to identify birds without your binoculars. If you look carefully, you might be able to discern the yellow eyes on the female **Bushtit**.

foraging flock may get closer and closer to you, and you may actually be able to separate the yellow-eyed females from the black-eyed males.

Okay, *now* you can use your binoculars. Compare and contrast the experiences of birding with and without binoculars. Don't go overboard with bare-naked birding. Draw from the strengths of both approaches. Use your binoculars for careful study of feathers and feather tracts (groups of feathers) and, frankly, for the purpose of enjoying the view. And use your eyes to put things in context, to give you perspective, and, more often than not, to identify the bird in the first place.

Listen Up

Step outside on a spring morning and close your eyes. In most places on the terrestrial portions of planet earth, you will hear birdsong. In many places, birdsong is the overwhelmingly dominant feature on the aural landscape, or "soundscape," if you will. Dawn creeps into a Forest Service campground, and the woods come alive with the carillon proclamations of Hermit Thrushes; Western Kingbirds announce the new day from every shelterbelt in the Great Plains; and from first light till midday and beyond, Carolina Wrens warble from every garden in the Southeast.

The sputtering call of the **Western Kingbird** is one of the most characteristic sounds around the towns and farms of the Great Plains.

Paradoxically, the "dawn chorus" is especially obvious in noisy towns and cities. That's because birds sing louder in environments with a lot of ambient noise—traffic, heating and cooling systems, and so forth. In other words, don't give up just because you live in Newark or Dallas. It is gratifying indeed to walk down a busy street in a major urban center and recognize one bird vocalization after another: the cooing of a Mourning Dove, the herky-jerky utterances of a House Finch, the twittering of Chimney Swifts high over-

head, maybe even the anxious squeals of a Peregrine Falcon at its eyrie on a skyscraper.

Just a second.

How *do* you identify all those sounds? It is relatively easy to match a bird in real life to its photo or illustration in a field guide. A distinctive-looking bird—an adult male House Finch, say—is quickly enough tracked down on the pages of a field guide. But what of its distinctive song? Where in the field guide do you begin your search for its "herky-jerky utterances"? And there's another problem: Written descriptions of birdsong are notoriously subjective. One person may describe the House Finch's song as "herky-jerky utterances," another may hear "disjointed warbling," and yet another says that the song is "wiry and metallic, slurred upward at the end."

To learn the **House Finch**, listen to the bird's song and look at its plumage—*at the same time*. Integrative learning experiences are the best.

To be blunt, the best place to learn birdsong is *not* from a field guide. Field guides are a superb complement to learning birdsong, mind you, but they are best used as an after-the-fact resource. They are not the place to start. The best place to start off is with the birds themselves. In theory, nothing could be easier: Listen to an unseen bird, then track down the bird and see it with your own eyes, then put a name to the song, then consult a field guide and make sure it all checks out. Mystery solved. In practice, it's a bit trickier.

For starters, the unknown songster may prove annoyingly elusive. A nearby vireo may be singing its head off, but the bird remains stubbornly concealed in dense shrubbery. And what about the sounds in a marsh?—grebes, bitterns, rails, wrens, sparrows, and others. They're all in there, they're all vocal, and they're all inconveniently down in the cattails and bulrushes. Even a stunning Scarlet Tanager—the species is said to cause retinal burn—may be strangely hard to see as it sings from the treetops. To be sure, tracking down an unseen songster may require some amount of patience.

Let's assume your patience has paid off. The tanager drops into view, the vireo pops out onto an exposed snag, the sparrow tees up atop a clump of vegetation. Now what? You've identified the mystery songster, but now is the time to *learn* it. (Think back to Kevin Karlson's distinction between merely identifying a bird and actually *looking* at it.) *Stay with the bird*. Watch it with your eyes and listen to it with your ears *at the same time*.

Simultaneously looking at and listening to a bird—that is to say, having an integrative sensory experience—takes some getting used to. It goes against the modern trend of compartmentalizing every experience, impression, and idea. But it's well worth the effort. Integrative learning experiences stay with us for a long time.

Effectively learning birdsong requires more than auditory memory. You can only get so far by listening to a high-fidelity recording of a Townsend's Solitaire. The actual experi-

The **Townsend's Solitaire** looks plain but sounds great. Its jangling song gives life to the winter pine forests of the Rocky Mountains.

ence of being there is entirely different: the sweet smell of pine needles, the *drip-drip-drip* of melting snow, the chill winter air, the bright blue sky, and then the unbridled joy of a singing solitaire. You listen and watch intently. The sleek gray bird sings again. Again. And again. Time has come to a standstill, it seems. You have learned the song of the solitaire.

Write It Down

Let's linger for a moment with the Townsend's Solitaire in the winter pines. You've just learned the song, but will it stick? As the morning progresses, you encounter other bird species, some thirty or more in total. You've looked at—and simultaneously listened to, remember— woodpeckers, jays, chickadees, creepers, nuthatches, kinglets, towhees, juncos, finches, and others. At the end of the morning, you hear a repetitious tooting, you track down the songster, and you discover it's another Townsend's Solitaire. Then you hear a rapid trill overhead, you look up, and you determine it's yet another vocalization of the Townsend's Solitaire. The solitaire's trill reminds you of one of the calls of the Cedar Waxwing, and its incessant tooting brings to mind the vocalizations of the Northern Pygmy-Owl. Things are starting to get confusing.

How do you keep all this stuff straight?

Answer: Write it down. There's really no way around this. Are you put off by the prospect of carrying a notepad into the field with you? Fair enough. In that event: Just do it. In no time at all, keeping notes will be as natural as reaching for your binoculars. In a short while, your skills as a birder will have improved markedly. It gets better. In due course, you'll discover a sense of satisfaction—even a certain delight—that comes from keeping field notes. Let's see how it works.

The best way to learn—and remember—the complex facial pattern of the **Killdeer** is to jot down a short description in your field notebook.

Perhaps the most obvious benefit of keeping a field notebook is that it facilitates recall. Quick: Can you describe the tail of a Blue Jay? What does the face of a Killdeer look like? Those are exceedingly familiar birds, yet we find ourselves oddly hard-pressed to say what

they actually look like. Just seconds following observation, we can't remember the basic patterns of a Blue Jay's tail or a Killdeer's face. Write it down, though, and you're likely to remember the Blue Jay's tail (broad blue bands, narrow black bars) and the Killdeer's face (white patches behind the eye and above the bill). The situation is far worse with unfamiliar birds. By the time you're leafing through the field guide, desperately trying to put a name to the bird, you've forgotten everything—unless you jotted down a few notes or rendered a crude sketch at the time of observation.

The second benefit of keeping a field notebook is a little more subtle, but it is huge. Here's the deal. When we're out in the field *without* a notebook, we get into a routine. We tend to notice the same thing over and over again. We might see a hundred or more Yellow-rumped Warblers on a good day in fall migration, yet each additional encounter seems to add nothing to our basic knowledge of the species. Each individual flashes the same yellow rump and utters the same hollow *check* note. When we *do* have a notebook, however, we tend to notice new things. Nobody wants to write down "yellow rump, hollow call note" a hundred times. Inevitably, we begin to pick up on new stuff—maybe the breathy flight call (completely different from the hollow *check* note), maybe the species' tendency to catch insects in midair (a behavior that is distinctive at great distances). Leave your notebook on the shelf, and you might never discover those things; take your notebook into the field with you, and you will find it impossible not to learn more about birds.

During the winter months, the **Wandering Tattler** is restricted to the narrow band of Pacific coastal habitat where surf meets shore.

The third benefit of keeping a field notebook is the pleasure, pure and simple, of being able to relive fond memories from long ago. Maybe it's been fifteen years since you last visited the glorious California coast. Everything was so vibrant, so vivid, at the time. But it's been a long while, and it's all gotten away from you—until, on a dreary November afternoon in Milwaukee, you open up your field notebook and embark on a thrilling voyage of rediscovery. Black Turnstones scampering amid wave-washed sea rocks; a Wandering Tattler calling shrilly, audible even above the din of the surf; Brown Pelicans flying single-file in gently undulating flocks just above the ocean's surface; and

The flight of the **Brown Pelican** is masterful. Write a short description in your notebook, or make a quick sketch, and you will never forget.

back on the dunes, the forlorn whistles of the distinctive local subspecies of the White-crowned Sparrow. Write it down, and you can recreate the experience forever; or commit it to memory, and you'll soon forget.

Patchwork

We need to come up for air. We've been all over the place: the California coast (tattlers and turnstones), the Rockies (Townsend's Solitaire), the big city (House Finch, Peregrine Falcon), and other places. We need to slow down and take a deep breath.

Instead of jetting off to a world-famous birding destination halfway or all the way across the continent, let's stay at home for a while. Let's engage in a practice that increasingly is known as *patchwork*. In many ways, patchwork is the complete opposite of what you might suspect. Far from being haphazard, patchwork is characterized by a strong degree of discipline and rigor. Patchwork refers to the intense, repeated, often systematic coverage by a birder of his or her "patch." Your patch might be the neighborhood park or a postage-stamp refuge at the edge of town. Maybe it's the complex of marsh and pastures beyond your backyard. Maybe it *is* your backyard.

There is something decidedly personal about patchwork. Much of the time, you visit your patch on your own. You refine your birding techniques at your patch, and you develop new field methods while out there. You always bring your field notebook with you, but you almost always leave your field guide behind; sometimes, even your binoculars are left behind.

Needless to say, patchwork provides you with extensive, often intensive, study of the same, locally common species, over and over again. The more you watch, the more you learn; and the more you learn, the more you realize how much more there is to learn.

Let's say your patch is a back bay in Long Island Sound, full of chorusing Long-tailed Ducks; the species is easy to identify, but it presents considerable challenge for the patient student of feather molt. You're up to the challenge. Your office building is located near the water's edge, and you have an hour to kill at lunch every day. You grab your binoculars and even a telescope (you do need high-power optics for study of molt), and you quickly dispense with the three-minute walk to the beach. You set up your scope, you check to make sure you've got your notepad, and you get to work. It gets to be a routine, yes, but it's also a welcome break from that other routine in your life: staring at a computer monitor, nine to five. And even though you're in a groove, every day brings new learning and new delights. Slowly, you start to learn the

Variation in **Long-tailed Ducks** is complex and fascinating to study. This bird, with a dark bill and mostly white face, is an adult female.

"Patchwork"—intensively birding a special place close to home—offers many rewards. Can you find an **Eastern Kingbird** in your local patch?

names of a bird's different feather tracts. You learn to recognize the differences between worn feathers and fresh new ones. You learn how to distinguish males from females, young birds from adults. The sense of achievement is satisfying, but even more satisfying is the realization that there is much more to learn.

Now let's say your patch is the family farm in Kentucky's bluegrass country. You soon enough learn the names of the common breeding bird species on your property, and then you move onto the next level: obtaining diagnostic photographs of all the birds that occur regularly at your patch. The Red-bellied Woodpecker and Eastern Kingbird are cakewalk; they're showy and conspicuous, they're fairly easy to approach, and they obligingly perch out in the open in good light. The Yellow-throated Vireo and Cerulean Warbler aren't as easy; they're small, they're not especially common, and they're up in the treetops. And the real tricksters: Worm-eating Warbler and Henslow's Sparrow. These skulkers favor dense vegetation, they don't like it when you get close, and they're uncommon. But you persevere, you get your photos, and in the process you've learned far more about the breeding ecology of these species than you ever would have otherwise.

Challenge yourself in your local patch. See if you can locate a nest of the **Yellow-throated Vireo**, or maybe you can get a photo of the bird.

Patchwork can become obsessive, healthfully and charmingly so. You *have* to visit your local patch. Chores and other workaday responsibilities are put on hold. As you set foot on your patch, the anticipation builds: You know the place like the back of your hand, but you also know that new learning and discovery await. Isn't that the whole point?

Learn "S&D"

It's an admittedly clunky term, somewhat imprecise and vague: Status and Distribution, often shortened to S&D. It refers to the way a bird species or population is distributed across its range. Key point: S&D involves *timing* just as much as it involves geography.

It's about learning and knowing *when and where* a species or population occurs.

If you don't mind, go back, please, and reread that last sentence in the preceding paragraph. S&D is best thought of as a *process*, a process of learning and obtaining knowledge. Mastery of S&D is one of the fundamental skills of the experienced birder. In a bit, we'll take a look at how to acquire mastery of S&D. For now, though, let's see why knowledge of S&D is nearly as critical to bird identification as being able to see and hear.

There are more than fifty warbler species in North America, each one of them uniquely defined by some combination of wing bars, tail spots, eye lines, crown stripes, breast streaks, and so forth. But those field marks can be hard to see—especially so on females and young birds. Even in good light, it may be hard to distinguish between Orange-crowned and Tennessee Warblers, to separate Connecticut Warbler from Mourning Warbler, or to tell the two waterthrushes apart. Identification of these birds is especially nettlesome in the fall, when the birds are generally duller and drabber. (Immature females can be especially frustrating.)

It's only slightly facetious to say that you don't even have to look at the bird to know what it is. Instead, just look at a calendar. If you are in the eastern United States, you have practically no chance of seeing a fall-migrant Orange-crowned Warbler before the middle of September; the bird is a Tennessee (or something else), almost guaranteed. If it's early May and you think you've seen a Connecticut Warbler, it's far more likely a Mourning or Nashville; the sought-after Connecticut is a notably tardy spring migrant, with most birds moving through the middle latitudes of the continent in late May and early June. And the waterthrushes: A bird in March is almost undoubtedly a Louisiana Waterthrush, which returns earlier in spring than any other warbler; but a bird after the beginning of September is most assuredly a Northern Waterthrush, which lingers in the fall far longer than the Louisiana.

An important component of bird identification is knowing *when* to look. **Louisiana Waterthrushes** migrate earlier than Northern Waterthrushes.

For almost every group of birds you can think of, knowledge of S&D is critical in the identification process. It's true of "tubenoses" and other seabirds, it's true of shorebirds, and it's true of flycatchers. Birds in those families tend to be highly migratory, but S&D is also tremendously useful in the identification of comparatively sedentary bird species. Fourteen species of "chickens" (partridges, grouse, pheasants, turkeys, and quail) are permanent residents in Colorado, but their distribution across the state is variable in both geographic and temporal extent. They are conspicuous at certain times of the year, inconspicuous at others; they occur in different habitats in summer and winter; they wander around to look for food or to dodge bad weather; and so forth. If you know when and where to look, you might find a dozen species on a "chicken tour." If you do not know S&D for Colorado chickens, you might well find a grand total of zero.

Let's return now to the matter of acquiring mastery of S&D. How do you do it? In

White-tailed Ptarmigans are non-migratory, but they do move around a fair bit. Use that knowledge to find the species at any time of the year.

a sense, it's already been done for you. Almost every state and province has one or more excellent books on avian status and distribution in the region. Your enjoyment of the birds in your area will be enhanced immeasurably by owning and regularly consulting such a work. Bird populations are in constant flux, of course, so it is beneficial to keep abreast of the changes. The quarterly journal *North American Birds* provides a continental overview, while state journals offer detailed analyses at the local level. Finally, there is the internet. That was bound to come up, wasn't it?

Everything, it seems, is available on the internet, and so it is with information on S&D. One internet resource seems especially worthy of mention: eBird. It's user-friendly, it's customizable, and it's free. In a nutshell, eBird is a place to manage your own bird sightings; it is a permanent electronic repository for all the stuff you record in your field notebook. And your personal data are linked to everybody else's: You can see how your observations fit into the bigger picture of regional—even hemispheric—avian status and distribution. Check it out: eBird.org. Almost immediately, you'll discover that you've become more knowledgeable about S&D. You'll start to pick up on patterns of rarity and abundance, and you'll become more attuned to seasonal changes in bird populations. You'll have fun in the process, and you'll become a better birder.

The Great Outdoors

We've just seen that knowledge of avian status and distribution is essential for bird identification. So is a field notebook. So are your binoculars and field guide, especially if you know how to use them. If you're blessed with good eyesight and good hearing, you're really on your way. It helps, too, to bring a certain element of patience and focus to the birding enterprise, and it's wonderful if you can train yourself to apply integrative thought processes to the business of bird identification. We've been through all that. But there's something more important—more important than owning good optics, more important even than good eyesight and good hearing. The most important thing is to spend as much time in the field as possible.

Birding is like playing the piano or playing baseball or playing chess. Sure, it helps to study strategy and know theory, to watch film and talk to the experts. But the main thing is practice, practice, practice. It's the same with birding.

Many of us fall into the trap of thinking there's just not a lot of time to get outside and watch real birds. According to this line of reasoning, only a select few—field biologists and tour leaders, for example—have the opportunity to spend ample time in the great

The **Red-winged Blackbird** is one of the most widespread and familiar birds in North America, but the spectacle of a winter roost is stirring.

The aerial courtship display of the **Common Nighthawk** is an audiovisual spectacular—and common in towns and cities across North America.

outdoors. That's a misconception.

Do you wait at a bus stop in the morning? Do you walk the dog in the evening? Do you have chores around the yard? Those are great venues for birding. Turn off your cell phone, leave your worries behind, and tune into all the great birds right around your neighborhood: a roost of blackbirds, gulls flying along the river, Barn Swallows nesting under the porch roof, American Goldfinches in the garden, Common Nighthawks zooming about the lights at the playing fields, you get the picture.

Spending time in the field is more about attitude than opportunity. Are you about to embark on a business trip?—See if you can meet up with a local birder early one morning, or after the conference is over, or maybe just during a long airport layover. Are you stuck at home with young children?—Most youngsters absolutely love going outside and exploring. They have keen eyesight, superb hearing, great brains,

Some of the most striking of birds—the adult male **American Goldfinch**, for example—are readily observed in urban and suburban backyards.

and, best of all, endless enthusiasm for discovering birds and other objects in nature.

Even the most avid of birders spend comparatively little time at world-famous wildlife refuges far from major population centers. If you did an analysis of their time budgets, you'd find that they spend most of their time working their local patches, leading local field trips, and, yes, birding with the kids or watching the blackbird roost at the bus stop.

It all adds up. Every experience in the field contributes to your skill as a birder. That's taking the long view. But there's another view: Each experience in the field, all by itself, is a special moment, an escape from life's routine, an encounter with beauty.

Behavior and Ecology

We mentioned earlier the modern tendency toward the compartmentalization of knowledge. In this regard, a work like Frank M. Chapman's *Handbook of Birds of Eastern North America* might have a hard time finding a publisher in the early twenty-first century. Chapman's magisterial *Handbook*, published in 1895, resembles a modern field guide in many respects: same size, same shape, same basic bird species. Start reading, though, and you'll notice a difference: In virtually every species account, Chapman strikes a wonderful balance between describing a bird's physical appearance and conveying information about its behavior and ecology.

It's not that modern birders are unaware of avian behavior and ecology. If anything, the environmental movement of the late twentieth century promoted an enhanced awareness of behavior and ecology. The problem, then, is that we have tended to disassociate behavior and ecology from the bird identification process. It's a "left-brain"/"right-brain" thing: We examine feathers and other field marks with our analytical "left brain," while we muse about behavior and ecology with our touchy-feely "right brain."

A large part of the problem is one of perceived *scale*. We think of field marks—especially feathers—as fine detail. Conversely, we conceive of behavior and ecology in very broad strokes. We speak quite precisely of a bird's scapulars and secondaries (those are feather tracts), but we refer loosely to its behavioral and ecological aspects as "shy" or "sedentary" or "arboreal." Field marks are objective in this view, whereas behavior and ecology are subjective.

One approach to overcoming this perception is to acquaint ourselves with the idea of *microhabitat*. We're all comfortable with the basic concept of *habitat*, of course, and it is customary to think of habitat in rather general terms: Woodpeckers inhabit "forests," meadowlarks favor "fields," and cowbirds abound in "edge" habitats. True enough, but birds' habitat preferences are often much more refined. Many bird species are strongly associated with particular microhabitats, and knowledge of these preferences is of tremendous value

Look for **Nelson's Sparrows** in prairie grasslands—but not just any old grassland. They like low-lying swales with cattails and cordgrass.

Know the microhabitat of the **Baird's Sparrow** before you begin your search for the bird. It nests in tallgrass prairie with scattered shrubs.

in bird identification.

The tallgrass prairie of North Dakota consists of lots of "fields," which in turn contain lots of meadowlarks. That's the broad view of habitat. In early summer, birders trek to North Dakota's "fields," where they hope to see a diversity of sparrow species in a seemingly monotonous sea of grass. In point of fact, North Dakota's prairie is a complex mosaic of different plant species and diverse growth forms. A different view of habitat—of microhabitat—is starting to come into focus.

To cut to the chase, North Dakota's legendary sparrows observe fairly predictable microhabitat preferences. Nelson's Sparrows proclaim their gasping songs from low-lying swales with standing water and plenty of cattails and cordgrass; Baird's Sparrows like it relatively high and dry, where the sedges give way to rough fescue; and Le Conte's Sparrows take the middle ground, where the cordgrass begins to yield to sedges. Birds have wings, of course, and they get around. These microhabitat preferences aren't ironclad. But they are strongly suggestive, and they greatly simplify our quest for these three sparrows—all in the same genus, all highly sought by birders, and all notorious for their secretiveness.

The microhabitat concept extends beyond avian preferences for different plant species. If you want to see Cliff Swallows on the dusty country roads of the western Great Plains, look for them in the immediate vicinity of culverts; the species is completely won over by such microhabitats in that region of the country. If you're looking for Black Vultures, check the landfills and charnel pits; seriously, they have a penchant for such places. If Black-vented Shearwater is your quarry, check the sea surface temperature before head-

Many microhabitats are manmade. In the arid western Great Plains, **Cliff Swallows** are most readily found around culverts under roads.

Do you want to spot a **Burrowing Owl** on the breeding grounds? Scan the prairie dog colonies, where the owls are most likely to be found.

ing out; they like it warm. If you're in search of a Burrowing Owl, scan the prairie dog colonies; while you're at it, you might also come across a Mountain Plover.

But let's not forget about the value of learning basic botany. Years ago, some observant birder figured out that clumps of jewelweed are favored by fall-migrant Connecticut Warblers. If you're looking for Bachman's Sparrows in the Southeast in the winter, head straight for the longleaf pine forests with an undergrowth of wiregrass; that's your best bet by far for this secretive sparrow. And the *albilora* subspecies of the Yellow-throated Warbler used to be called the Sycamore Bird with good reason: It strongly favors the gigantic sycamores that tower above the streamside tangles of the Ohio River Valley.

We have been talking about a bird's microhabitat preferences as an *ecological* attribute of the species, but it is every bit as correct to refer to such preferences as a *behavioral* trait. Behavior and ecology are strongly linked, better thought of as two sides of the same coin than as discrete phenomena. Foraging shorebirds observe surprisingly sharp microhabitat boundaries, but it is difficult for most observers to discern the mosaic of microhabitat differences that characterize a seemingly uniform mudflat. Instead, our eyes—and brains—are attracted to behavioral differences that reflect underlying microhabitat differences.

Many small shorebirds forage in shallow standing water, but the **Least Sandpiper** tends not to. Look for it on slightly higher ground.

At favored migration stopover sites all across the continent, mudflats may be teeming with hundreds, even thousands, of shorebirds. Easily a dozen species may be present, and some sites may host twenty or more species. Before whipping out your scope—before even scanning with your binoculars—do this: Look over the flock with your naked eye, and note all the different behaviors out there. The Long-billed Dowitchers are bunched up tight, repeatedly working the same ground; but a flock of Lesser Yellowlegs is strewn all over the place, rapidly sweeping from one side of the mudflat to the other. Back to the dowitchers: There are a few Stilt Sandpip-

Looking for a **Western Sandpiper** in the company of super-similar Semipalmated Sandpipers? It might be away from the main flock a short ways.

ers mixed in. In profile, they are dowitcher-like, but note how their tails stick higher in the air. Now you see a flock of "peeps," tiny shorebirds that look similar even through a telescope. You guess that the peeps on the higher mud are Least Sandpipers; they don't like standing water. As to the rest of the peeps, you note that one bird is standing away from the others; it is in slightly deeper water. You guess that you have a lone Western Sandpiper at the outskirts of a flock of Semipalmated Sandpipers. You check with your scope, and all your hunches are correct.

Behavior and ecology are not a substitute for wing bars, crown stripes, and other field marks. And it's not quite right to say that one suite of characters complements the other. That implies a certain dichotomy. The best approach is holistic. Look at a bird's field marks, listen to its vocalizations, interpret its behavior, and understand its ecology—*all at the same time*. In that way, you will begin to appreciate that the living bird is greater than the sum of its parts.

Watch Birds Fly

Quick question: What is the single most salient thing about a bird? With all due respect to penguins and ostriches, most people would tell you: the ability to fly. Bats and insects can fly, but it is the image of a bird in flight that captivates us. The ten thousand extant bird species are fantastically varied in their colors and vocalizations, yet, in the final analysis, it is powered flight that seems to be the defining essence of the bird.

Now here's the strangest thing: We tend not to watch birds in flight. We're canoeing in Florida, admiring a Limpkin. The bird takes flight, and we stop watching. Now we turn our attention to a small flock of American Pipits. They're strutting along the water's edge, but we inch the canoe too close, they flush, and that's that. Next up: a fairly small, mainly yellow bird that we just can't get a good read on. Looks like a Pine Warbler, but we're not sure. Then it puts into flight, and the bird remains a mystery. One more: an accipiter (a kind of hawk) in a tree. We can tell it's a juvenile accipiter, but we're having a hard time saying whether it's a Sharp-shinned Hawk or a Cooper's Hawk. Then it flies away.

With practice, you can learn to recognize the **Sharp-shinned Hawk** in flight by its relatively small head, rounded wings, and short tail.

Let's revisit our canoe trip now, but let's not throw in the towel just because the birds are somewhat flighty this morning.

We'll work backwards, starting with the accipiter. Juvenile Sharp-shinned and

Cooper's Hawks are, quite simply, hard to tell apart—*especially* when they're perched. Our bird is perched at an oblique angle, giving us problematic views of both the underparts and the upperparts. It's shady, and the bird is partially concealed by vegetation. We're having an utterly typical encounter with an accipiter. And, typically, the bird flies off eventually. *Now* is the time to start paying attention! That brown blob of a bird suddenly takes shape. In flight, its small head barely projects beyond the rounded wings; the tail appears straight and square-tipped. The bird alternates quick wingbeats with short glides. *Flap, flap, sail; with a short square tail*—clearly a Sharp-shinned Hawk.

That was (relatively) easy. Over the years, the American birding community has gotten good at identifying flying raptors. There are several superb guides to hawks in flight, and hawkwatching stations routinely provide public lectures and workshops on in-flight identification of raptors. In contrast, methods for identifying passerines (or "songbirds") in flight are generally unknown within the birding community. Case in point: the presumptive Pine Warbler that just flew off. It was a yellow blob in the tree, and it's a yellow blur in flight. The bird transits the clearing above our canoe, and it's quickly out of sight. We don't even know what field marks we were supposed to be looking for. We'll come back to this warbler, but for now let's take a look at the pipit.

Some bird species are easily recognized by their distinctive flight calls. The **American Pipit**, which says *pipit* in flight, is one such bird.

American Pipits are relatively common. They're found in open country, often along shores or in fields with little vegetation. They scare easily. And when they flush, they do something very useful: They utter a stereotyped "flight call." It's especially helpful that their flight call goes like this: *pipit*. Honest. Once you learn the flight call, you discover that the October skies over much of the continent are full of American Pipits on fall migration. Every once in a while, you catch a glimpse of one in flight. Seen through binoculars, the breast streaks are reasonably prominent; and with or without binoculars, the long tail stands out.

Let's go back to that warbler. It's just flown away, recall. *Now is the time to look through your binoculars.* The bird is relatively long-tailed, a judgment you weren't really able to render on the perched bird. You can see that its white undertail coverts are short; when the bird was perched, you just couldn't tell. The short undertail coverts contribute to the bird's long-tailed look, and so do its relatively short wings. It all adds up to Pine Warbler. *These field marks are not hard to see.* Birders routinely make note of wear and bleaching on *single* feathers on a perched bird; it is comparatively easy to assess, say, tail length on a flying bird.

Now the Pine Warbler does something else. It gives a flight call—a clipped, pierc-

ing, high-pitched *seep*. It's not as distinctive as the pipit's *pipit*, but it is a helpful clue. For example, the Pine Warbler's flight call differs appreciably from the buzzy *dzzzt* (like a little spark) of the Yellow and Blackpoll Warblers. In fall and winter, both can be confused with the visually similar Pine Warbler, but not if you know their flight calls. Many bird species have flight calls that are indeed diagnostic, distinct from the flight calls of all other species: Yellow-billed Cuckoo, Swainson's Thrush, Lark Bunting, Dark-eyed Junco, Dickcissel, and a host of others. Most of these birds migrate by night, and it is possible—and an absorbing challenge—to identify invisible nocturnal migrants by their flight calls.

This **Limpkin** is about to take flight. Now is the time to pay attention! Flying birds show details that are not obvious on perched birds.

Finally, the Limpkin. This is one of the oddest and most distinctive birds in North America, all by itself in the family Aramidae. Perched or in flight, the Limpkin is easy to identify. It's so big, you don't need your binoculars. It's so *loud*, you think you're going to need hearing protection. The wooded swamps of the deep South owe much of their primal character to the Limpkin. Isn't that reason enough—isn't that the best reason of all—to savor the view of a Limpkin in flight?

The Spice of Life

We perceive the world around us through a cultural filter. Linguists have long known that color perception is a function, in part, of the language we speak, and anthropologists report that certain cultures perceive the "sweetness" of a color or the "fragrance" of a song. Culturally conditioned sensory perception surely affects how we see and hear the birds around us.

There is more to nature study than sensory perception. We also connect to nature at a deeply philosophical level. And in this sense, it is worth briefly noting that our Western culture predisposes us toward a particular outlook on nature. The Western worldview is strongly "Platonic," a term that obviously refers to the Greek philosopher Plato. Entire libraries couldn't fill all the books ever written about Plato, but we're going to distill the whole edifice of Platonic philosophy down to its basic essence, in a single short sentence: Things just are.

Think of a bird. Any bird will do. How about the Red Crossbill? It is what it is. Always has been. Always will be.

You might be able to see where this is headed.

In 1859, Charles Darwin overturned Plato's applecart. Darwin discovered that birds and other organisms change through time via a process that has come to be known as evolution. The Western world has been in philosophical upheaval ever since Darwin.

Darwin went beyond documenting changes in organisms over the course of immense ("geological") time scales. He was also keenly interested in *ongoing, contemporary* changes. He was skeptical of efforts to put organisms into Platonic boxes—categories such as "varieties," "subspecies," and "species." In Darwin's view, boundaries between populations of organisms are fuzzy and imprecise. In many instances, it's not at all clear what trait or traits delineate the boundaries between species.

Darwin didn't coin the saying, but he might as well have: Variety is the spice of life. Indeed, variation in populations is the driving force in the story of life on earth. Yet we birders are oddly resistant to this truth. We like for our birds to fit into tidy boxes called "species." We grumble when professional ornithologists shuffle and reshuffle our checklists. We demand that our field guides portray birds as simply and invariantly as possible.

Old notions die hard, and the modern birder's conception of nature remains in many ways non-Darwinian. It goes back to the brilliant Roger Tory Peterson—on anyone's short list for one of the most important figures in the history of nature appreciation. With his daring *Field Guide to the Birds*, first published in 1934, Peterson formulated a neo-Platonic agenda that remains entrenched to the present day.

Peterson's triumph was that he figured out a way to preach the gospel of ornithology to the common man. Peterson's field guides have inspired millions of people to learn about birds and other objects and phenomena in nature. His method was to cut through the clutter, to get to the essence of what makes a species quickly and easily identified in the field. He encouraged ordinary non-biologists to learn the smallest possible subset of field marks that uniquely distinguishes one bird species from another. A key breakthrough was to get birders to see past the rampant variation present within any population of birds. Subspecies—basically, geographic variants of a species—"should not concern the field amateur,"

Even casual study of a flock of **European Starlings** will reveal substantial variation in plumage colors and patterns among individual birds.

All of these birds are **Common Grackles**, but note the differences among them. Variation is the rule, not the exception, in most bird species.

Peterson decreed. He also said, "A grackle always is shaped precisely like a grackle, and one starling invariably resembles another starling." Actually, grackles and starlings are fantastically varied in form, color, and pattern.

The "Peterson System," as it has come to be known, found special receptivity in the middle of the twentieth century, in general an era of the "lumping" of species by taxonomists. Populations formerly regarded as two or more species were joined together, or "lumped," by mid-century ornithologists into just one species. By the mid-1970s, nearly all North American bird species could be identified with a Peterson field guide.

Times have changed.

In recent decades, the "splitters" have regained ascendancy. The erstwhile Scrub Jay has been split into three species. Same thing with the bird formerly known as the Solitary Vireo. Now it consists of three species, and the boundaries among the three are fuzzy.

This is probably a **Plumbeous Vireo**, but it is hard to rule out the possibility that it is a Cassin's Vireo. It is okay to be uncertain.

Many species of "tubenoses"—oceanic seabirds—are receiving increased attention from taxonomists, and multiple splits may lie ahead. Field identification of these "new" seabirds will depend on such subtleties as the timing of molt and differences in vocalizations given by night around the remote offshore breeding colonies. The ultimate challenge, though, has to be the Red Crossbill.

Red Crossbills are widespread in the conifer forests of North America. Males are red, and their mandibles cross over each other. End of story, according to the Peterson System. In recent years, though, ornithologists have discovered that the Red Crossbill may actually be a complex of so-called "cryptic species," so named because the differences are not readily apparent (hence, "cryptic") to human eyes. Ten populations of Red Crossbills have been described, and it is believed that many of them—perhaps the majority of them—are valid biological species. Key differences

The **Red Crossbill** (adult female shown here) may be a complex of "cryptic species"—possibly as many as ten in North America north of Mexico.

among these populations (called "types" by ornithologists) are behavioral and ecological. They are separated by their flight calls and microhabitat preferences. One "type" says *kyew* and feeds on the cones of ponderosa pine, while another says *kyip* and feeds on the cones of lodgepole pine. As to physical differences, you won't find them on the birds' feathers. Instead, you need to go *inside* the birds' beaks and look at differences in bill morphology. Think of it as forensic dentistry for birders.

One more problem. These differences, although real, are not entirely consistent. Not all Red Crossbills can be fit into one box or another. Even with spectrographic analysis of the flight calls and acrylic imprints of the birds' mandibles, even with DNA analysis of tissue, some individuals just can't be categorized as one type or another. With Red Crossbills, we can't say, as Plato might have, that things just are. And if Peterson had lived on, it's hard to see how he could have accommodated the Red Crossbill complex on the pages of his field guides.

Anybody up to the challenge? Read on.

Which "type" of crossbill is this? Chances are, it's a "Type 2" **Red Crossbill**, which specializes on the cones of ponderosa pine, shown here.

Start Young

Earlier, we noted that the skills of a birder are not unlike those of a musician or athlete. It helps immensely if you start when you are young. Bird identification expert Will Russell states, "I've known only one person who began after twenty and still became a first-rate birder." That's sobering news to the vast majority of birders who got started as adults. "However," Russell is quick to point out, "one shouldn't confuse skill with enjoyment."

Participants in the ABA's Young Birder Conferences come from various backgrounds, but they are united in their keen passion for birding.

Birding doesn't promise a cure for cancer. Birding doesn't offer a clear path to world peace. Birding, to be honest about it, is—or ought to be—good, clean fun. Birding is all about a Townsend's Solitaire warbling wildly from the snowy pines; a raft of smartly attired Long-tailed Ducks chorusing beyond the breakers; a Limpkin in a cypress swamp wailing like a tormented sinner. Birding can be a fascinating challenge, as we begin to learn the flight calls of nocturnal migrants, as we start to sort through all the complexity in the Red Crossbill complex. Or birding can be a simple delight, as when we listen to birdsong on the North Dakota prairie or marvel at the synchronized movements of a flock of shorebirds in flight.

Birding brings out the best in us. It reconnects us with the natural world. It makes us fully human again.

Yet there is considerable worry among environmental educators that young people are more sharply disconnected from nature than at any previous point in human history. Young people—especially boys and girls in their teens—may have better hearing, better eyesight, and better brains than the rest of us, but to what avail? That's where the rest of us—the vast majority of birders who are older than twenty—come onto the scene.

Look around. There are exceptions, but field trips tend to be attended by baby boomers and even their parents. Same thing with local bird club meetings. Same thing, too, with

Start young! Garrett Schmoker (left), Hannah Floyd (middle), and Andrew Floyd (right) ponder methods for identifying birds in flight.

national birding conferences and symposia. There are more birders than ever before, but it's also the case that birders are substantially older than ever before. In a generation, it might well be all over.

Think of it as our legacy. If we get serious about including young people in our affairs, birding is likely to become central to the fabric of American life. Already, there are more birders than hunters and fishermen. By some estimates, there are more birders than golfers and gardeners. But it's a recent phenomenon, it's a demographically skewed phenomenon, and it's not guaranteed to last. We owe it to ourselves to train and inspire the next generation.

One final thought.

Today's young birders aren't copycat versions of ourselves. By and large, they're "greener" than we are, more attuned to behavior and ecology than we are. They're not as fired up about "life lists"—basically, brag sheets of birds seen—as we are. For better or for worse, young birders are products of the postmodern world, and they're probably more receptive to an intrinsically Darwinian, anti-Platonic worldview than we'll ever be. They're going to be birders in ways that are different from how we are. Even as we seek to pass along our traditions, we need to let go and trust the next generation.

The Red Crossbill complex may not be problematic for the birders of tomorrow in the same way that it is for us moderns. Variation among the various crossbill "types"—maybe they'll someday be classified as different species—may prove to be less vexing than is currently thought. Maybe tomorrow's birders, more adept at resolving vocal differences and discerning ecological and behavioral traits, will come to view field identification of the Red Crossbill complex as eminently soluble. Or maybe some keen young birder will have a critical insight that has thus far eluded us: consistent differences in molt strategies, let's say—differences that nobody had ever before noticed. And maybe tomorrow's birders will finally cast off the shackles of Platonism and learn to appreciate the Red Crossbill complex for what it really is: naturally variable, fiendishly complex, and ultimately unknowable. All those things, yes, and this too: beautiful. Tomorrow's birders will reaffirm that the Red Crossbill—whatever it ultimately proves to be—is beautiful.

Plato's quest was beauty, and so is ours. On that point we are in agreement. We live in a land of plenty, but our lives can be empty and unsatisfied. We crave beauty, but sometimes we don't know where to look for it. Do yourself a favor. This weekend, head out into the woods or off to the shore. Take a young birder with you. Together, you will rediscover beauty, abundant and free.

The **Red Crossbill** challenges us with cutting-edge scientific questions, yet delights us with its simple charm and timeless beauty.

Ted Floyd

Ted is the Editor of *Birding*, the flagship publication of the American Birding Association. He is the author of numerous articles and two recent books, including *The Smithsonian Field Guide to the Birds of North America* (HarperCollins). Ted is a frequent speaker at bird festivals and other birding events, and he is an Instructor with the ABA's Institute for Field Ornithology.

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— Ted Floyd and Bill Schmoker

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- Photos by Bill Schmoker, Nikon Birding ProStaffer and middle school science teacher. Also a parent-in-training, Bill is in heavy demand as a lecturer, tour guide, and workshop leader. His photos are widely admired for authentically capturing the essence of birds in their natural habitats.
- Foreword by Ned Brinkley, tour leader, expert birder, and past Editor of *North American Birds*, the ABA's quarterly journal of ornithological record.

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