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Changing How We Bird

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On the cover: When a family of White-tailed Ptarmigans appears, you don’t want to be struggling with inadequate gear. Comfortable pants and an easy-to-use camera, for instance, can assure that the experience is joyous rather than frustrating. Photo © Mike Freiberg
At the American Birding Association, we strive to provide the birding community with practical, useful information that makes birding even more pleasurable, satisfying, and where possible, easier. *Birder’s Guide to Gear* is part of that effort.

Having the right gear and knowing how to use it well can make the difference between a frustrating day afield and a triumph. To that end, we are always looking for ways to help you not only make good purchases of new equipment, but also get the most out of the gear that you already own. I hope that you’ll find much of use here.

I also hope that you’ll share this issue, and others in the *Birder’s Guide* series, with other birders, whether they are ABA members yet or not. Simply point them to aba.org/birdersguide, where they can view and download full electronic versions. And remind them that the best way to keep information like this coming is for them to join the ABA, too.

Finally, please let us know what kinds of information and topics you’d like to see covered in future editions of this and other *Birder’s Guides*. We learn when we help you learn.

Good birding,

Jeffrey A. Gordon  
President, American Birding Association

Some people are real gear-heads and love checking out all the newest products, comparing them to what’s already out there, and making their own decisions about what to buy. But if you’re like me, you just want someone you trust to tell you how to get the most bang for your buck.

That’s where *Birder’s Guide to Gear* comes in. Every year, we assemble a group of experts and ask them their opinions on the latest birding gear. In this issue, Ashli Gorbet lays out the options for using GPS for better birding. Ted Floyd explains the virtues and limitations of using a small camera for bird photography. Sharon Stiteler shares her tips for finding convertible field pants. Heidi Trudell elucidates us on methods and gear useful in helping to prevent birds from colliding with windows. And Elise Faike introduces us to Chums, a diverse line of field gear that makes products that can be used from everything to securing your hat and sunglasses to protecting your lips from sun- and windburn.

Please let us know what you’d like to see reviewed or discussed in the next issue. Even better, consider writing an article for us. *Birder's Guide* only exists because our talented pool of ABA members is willing to sharing its knowledge. By the same token, we at the ABA depend on our members to give us feedback about what they want—and don’t want—to see in ABA publications. Please consider taking just a moment to share your thoughts with us, either via the email address printed above or by leaving a comment at aba.org/birdersguide.

Good birding,

Michael L. P. Retter  
Editor, *Birder’s Guide*
Birder’s Guide is published by the American Birding Association, Inc., a not-for-profit organization that inspires all people to enjoy and protect wild birds.

The American Birding Association, Inc., seeks to encourage and represent the North American birding community and to provide resources through publications, meetings, partnerships, and birder networks. The ABA’s education programs develop birding skills, an understanding of birds, and the will to conserve. The ABA’s conservation programs offer birders unique ways to protect birds and their habitats.

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Elise Faike is a geologist and adventure travel planner who lives in Challis, Idaho with her husband, Dave, and their little blue heeler, Tater. She enjoys birding and watching wildlife all over Idaho, the U.S., and the world. Elise also likes hiking, mountain biking, and kayaking. She has finally seen a wolf in Idaho, but would still like one to pose for her there for a photograph.

The editor of Birding magazine, Ted Floyd loves birds, birding, and birders. He enjoys birding his local patch and foreign countries; he volunteers at the local public school and speaks at international conferences; and his favorite birding activities are grim all-nighters (“Big Nights”) and lazy afternoon walks in the park with children and no binoculars. Ted is the author of the Smithsonian Field Guide to the Birds of North America and the American Birding Association Field Guide to Birds of Colorado.

Ashli Gorbet grew up on the west side of Cleveland and was enamored with nature at a young age. After earning a bachelor’s degree in wildlife management from The Ohio State University, she spent more than a decade exploring the southwestern U.S. from a primary base in Albuquerque, New Mexico. There, she worked for Rio Grande Bird Research by conducting banding operations, and she completed a study on the breeding biology of Black-throated Gray Warblers. Ashli recently returned to Ohio to join Black Swamp Bird Observatory as its banding projects manager. Ashli leads trips for BRANT during her free time and is pursuing a Master of Natural Resources degree from Utah State University.

Since 1997, Sharon Stiteler has achieved her goal to get paid to go birding. In 2004, she founded the popular blog, Birdchick (birdchick.com). She travels the world as a field trip leader, birding consultant, humorous keynote speaker, bird surveyor, and writer. She wrote the books Disapproving Rabbits and City Birds Country Birds; is #32 in the “Geek A Week” trading card set; and works as a National Park Service ranger. She contributes to “Outdoor News Radio” and “All Things Considered”, and has appeared on “NBC Nightly News” answering bird questions. When she’s not digiscoping or performing improv, she’s a blue-ribbon beekeeper. You can find her on Twitter, Facebook, Instagram, YouTube, and Google+ as “Birdchick”.

Heidi Trudell is a mild-mannered tech at an automotive gadget start-up who moonlights as a crepuscular window collision monitor. Her passion for preserving incidentally dead birds began in 2003. Heidi has been a librarian, zookeeper, rehabber, bird guide, and nature blogger in Texas (bigbendnature.com). She tends the Facebook groups “Dead Birds (for Science!”) and “The Auk-ward”. Heidi is a regional coordinator for Washtenaw Safe Passage and resides in Ypsilanti, Michigan.
When I started birding in the early 1980s, I didn’t use binoculars. But it wouldn’t be quite accurate to say that I didn’t use optics. I had a camera—a small, square one that yielded awful results. With that little camera, I carefully stalked the birds at my feeder and occasionally got quasi-recognizable prints of chickadees and woodpeckers. Never mind Black-capped vs. Carolina or Downy vs. Hairy; what I mean is, you could tell that one print depicted a chickadee or chickadee-like bird, the other a pied woodpecker of some sort.

I gave up. It wasn’t worth it. I soon enough started birding with binoculars. And for the next 30-plus years, that’s pretty much how I birded. Sure, I acquired a spotting scope along the way. I carried pen and paper with me in the field, too, and a field guide was usually nearby. But those things were extras. The one constant, essential object in my possession was a pair of binoculars. Birding without binoculars would have made as much sense as playing hockey without a hockey stick.

I still go birding with binoculars. But I’m once again using a camera. Like the one I used as a kid, it’s small and squarish. Unlike my old camera, though, this new one yields pretty satisfactory results—so much so that I find myself using my camera more than my binoculars. Of late, my binoculars have
changing the way we bird

assumed a secondary role; I use them to make a quick ID, and then I get down to the business of photography.

The following may seem semantic, almost theological, but please bear with me. I'm going somewhere with it. Here goes: Although I use a camera a great deal these days, I don't consider myself to be a photographer. I'm a birder. I'm a birder who happens to use a camera. The distinction is an important one. I promise, I will return to this point at the end of the article.

For now, though, let's see how my camera, the Canon PowerShot SX50 HS, works. I'm going to share with you some photos I took at my local patch, Greenlee Wildlife Preserve, a postage-stamp-sized wildlife refuge down the street from my house in the suburbs northwest of Denver, Colorado. All are from the first week of July 2016. Just to be clear, I took these photos while birding. You can look up my sightings on eBird or check the state birding listserv.
belaboring the point, but I took these photos as a birder, not as a photographer.

**Point and Shoot**

- **American Robin**

  This species is one of the great constants across much of the ABA Area. Go out, look around, and you’ll probably see a robin—like this one, in early evening light at the preserve. The bird is a recently fledged juvenile, and it’s a rather sorry-looking one at that: knock-kneed, droopy-winged, skew-tailed. It’s an unremarkable bird, I think you’ll agree, and an unremarkable photo.

  Actually, I don’t agree on that latter point. This photo would have been inconceivable in the early 1980s, when I started birding. Back in the 1980s, you couldn’t walk down the trail while birding—binoculars in hand, notepad in pocket—and get a point-and-shoot photo of this quality. No, you’d need a bigger and better camera, one with settings for aperture, shutter speed, and f-stop. I have a vague idea of what is meant by aperture and shutter speed but no idea at all what an f-stop is. [To learn about these terms, check out Sherrie Duris’s article in the 2013 issue of Birder’s Guide. —Ed.]

  If the Canon SX50 has settings for those things, I don’t know about it. Remember, I’m not a photographer. And I’ve never, ever read an owner’s manual. I whirled out the camera, pointed-and-shot, and got this photo. If this had been Colorado’s first Fieldfare, a four-second wonder, I’d have gotten the bird. (With my point-and-shoot from the 1980s, I could have passed it off as a Fieldfare, hahah.)

**Point and Shoot... and Edit**

- **Say’s Phoebe**

  You’ve got your photo. Now what? In the 1980s, I would have extracted the film from my camera, biked to Rite Aid, filled out the paperwork, stuffed the folder—cum—film in the slot, biked back home, biked back to Rite Aid a few days later, picked up the prints, paid the clerk, biked back home again, opened the folder, looked at the prints, and prayed for one or two decent ones. No
wonder I didn’t last with that camera.

Today, I pop the memory card from the camera, stick it in my computer, and review the images onscreen. No wonder I’m sold on the Canon SX50.

Okay, that’s not really all there is to it. Once I’ve settled on one or two decent photos, I get down to the business of editing them. It’s okay to edit photos. The pros do it. It’s not cheating. With the Canon SX50, I find that my photos usually benefit from sharpening and highlighting. I often tweak the saturation and temperature but—honestly—more for fun than anything else. I almost never adjust shadowing, and I haven’t yet drunk the Kool-Aid of tint and sepia. The contrast and exposure settings are the tricky ones. They mess up the image onscreen, but they improve the quality of images subjected to file compression by eBird, Facebook, Google, and so forth. We’ll talk about this more in the next entry.

But before we move on, let’s look at a real example, a Say’s Phoebe on a hot afternoon at the preserve. Using the settings on my computer, a Mac, I sharpened and highlighted the photo (to give the image more pop), increased the saturation and temperature (to make the image warmer overall), and slightly increased the contrast and exposure (to make the image look better online, a point I’m still dancing around).

Point, Shoot, Edit... and Share

• Double-crested Cormorant

Next step in the process: Share your photos with the world. But how? Back in the day, you’d show them to your pals at a get-together in your den. Remember upside-down images, burned-out bulbs, and 35mm slide projectors that weighed more than a cinder block? It amazes me to think that, not all that long ago, I traveled with my slides. Things are so different today.

Today you photograph a Double-crested Cormorant and post the image to Facebook. In an instant, oh, a billion or so people have access to the photo. Okay, I don’t have that many Facebook friends, but I’m pretty sure more people saw this cormorant on Facebook than ever would have seen it back in the days of 35mm slide projectors. I put the photo on Twitter too, and blogged about it. And of course I uploaded it with my eBird entry for the morning of the sighting.

The photo looks different in those media—Facebook, Twitter, WordPress, and eBird—than straight from my camera. I’m told it’s because they’re compressed. I haven’t a clue as to how file compression works but can tell you the result: Compressed photos are soft, muddy, and dark. That’s why I mess with the contrast, exposure, and other settings discussed earlier. Bottom line: Consider where you want to post or publish your photos, and edit accordingly.

Challenge I: Chiaroscuro

• American White Pelican

It sounds so simple: light and dark, and the interplay between the two—that’s really all there is to photography. The rules of chess are simple, too, and so are the fundamentals of counterpoint. Well, I’m not a grandmaster, and I can’t compose a fugue. Same deal with photography. When it comes to the balancing act between light and dark, I have no idea what I’m doing. But I’ve noticed a few things about the SX50’s performance under different lighting regimes, and I’ll share those observations.

In low light, the images are grainy, blurry, or both. If I need a “documentation shot” of a rarity during twilight, I’ll prob-
ably get better images by digiscoping with my smartphone camera. The Canon SX50 just doesn’t perform well in low light...or, if it does, you can read about it in the user manual. In brighter light, the images are good to excellent—good if you just point and shoot, excellent if you play around with the +/- settings that seem to have something to do with exposure.

Still, there’s the problem of light and dark in the same image. An American White Pelican on a sunny morning at the preserve is illustrative. There’s a lot of white on that bird, and it’s being blasted by the rising sun, but there’s also a fair bit of color in the image—on the bird itself and in the pea soup it’s swimming in. It was a beautiful sight, and I’m satisfied with the image, especially considering that the bird was just there. Like the cormorant, it just swam by. The image wasn’t staged or set up. That’s a huge difference from the bird photography of yesteryear.

**Challenge II: Fast and Furious**

- **Bushtit**

Some of Ansel Adams’s most famous photos are of scenes that must have been overrun by Bushtits. But as far as I’m aware, you can’t actually see any Bushtits in his photos. Adams prepped for hours—sometimes for days or even weeks—to create his immortal art. That’s cool, but it’s no way to get a photo of a Bushtit.

The Bushtits in my neighborhood make Black-capped Chickadees look like sloths—ample and inert. Heck, they make hummingbirds look relatively sedate; at least, hummingbirds sometimes perch on exposed snags for many seconds to a minute or so at a time. Bushtits are tiny and hyperactive, forever on the go; Bushtits rarely come out in the open, and they’re practically devoid of field marks. They’re a challenge to photograph.

With the SX50, I got some decent photos of the neighborhood Bushtits. Case in point: this female in early-morning light. A sloth or hummingbird at that distance would have been sharper, but this bird was out in the open for just a few seconds and moving quickly past. I think it’s fair to say that, given adequate light, you can get a
photo of almost any bird with the SX50. With one exception.

**Challenge III: Fly Like an Eagle**

- **Swainson’s Hawk**

Much of the time I was out there getting photos for this article, a couple of Swainson’s Hawks were at and near the preserve. Several of my photos of the perched birds turned out fine—for example, an adult against a mosaic of cottonwood foliage in late-afternoon light. But when it comes to getting photos of the hawks in flight, I just don’t have anything to show for my efforts. Neither do I have any photos of cormorants or pelicans in flight. As to robins, phoebes, and Bushtits, fuhgeddaboudit. I’ve seen some okay—nowhere near great, but okay—SX50 photos of big birds in flight: soaring raptors and such. Those were the handiwork of kids a third my age: kids with better eyes, steadier hands, and faster reflexes than mine. But I have yet to see a passable photo, courtesy of the SX50, of a flying passerine that was anything other than a soaring raven.

For as long as I’ve been the editor of *Birding*, I’ve been a champion of photos of birds in flight. What could be more quintessentially avian than flight? We need more—many more—photos of birds in flight, but we’ll have to get them with cameras other than the SX50.

**Birding with a Purpose**

- **African Collared-Dove**

I’ve thus far sidestepped what many consider to be the greatest virtue of the SX50: its documentation value. It’s so easy to use that, unless you left the memory card or battery at home (been there, done that), you’ll probably get a diagnostic photo of that state or county mega.

I’ve already mentioned that the photos for this article are from early July—not the best time of year in my neck of the woods for rarities. Then again, I can show you a photo of a species that isn’t on the Colorado list! For the past year or so, Colorado and Wyoming birders have been gradually...
wrapping their minds around the fact that there are two species of *Streptopelia* collared-doves in the region: the well-known Eurasian Collared-Dove and the under-the-radar African Collared-Dove.

Separating the two is difficult, and I, for one, am cautious about sight records. Audio recordings are the gold standard (the two species sound utterly different), but decent photos are often diagnostic. It’s gratifying to me that birders all up and down the I-25 corridor are starting to notice and document African Collared-Doves, and it’s not surprising to me that a lot of the documentation is being provided by birders equipped with the SX50 and similar cameras.

### Expand Your Horizons

- **Odes and Leps**

I’ll mention briefly that the SX50 is superb for insects and other arthropods. With just a nudge of the focus lever, you go from telephoto to macro—from a songbird in the treetops a quarter mile away to the fine details of wing venation on a skipper or spreadwing. The SX50 performs fine at its maximum zoom of 200x, which I gather is the equivalent of a 1200mm lens on a “normal” camera. Anyhow, cameras like the SX50 are revolutionizing the way we engage insect study, a point I’ll develop more broadly in just a moment.

### Birding on the Brink: Is Our Hobby on the Verge of Total Transformation?

A little while ago, I was leading a bird walk at Greenlee Wildlife Preserve. The outing was sponsored by the city, which provided loaner binoculars to anybody who wanted to borrow them. One of the unbinoculared birders declined the offer. She gave the impression that she might as well have been offered banding calipers, a DNA kit, or a shotgun. Sure, those things are essential in certain special situations in field ornithology, but not for an afternoon bird walk. The woman didn’t need a shotgun, and she didn’t need binoculars. Neither did she intend to practice bare-naked birding. In the same breath that she declined the binoculars, she asked her friend if she could borrow a smartphone camera. Her friend, who
had another camera (a point-and-shoot like mine), said yes, and all was well. Many others in our group, too, carried cameras. But I didn’t see a lot of binoculars.

Give some thought to that. Birding without binoculars. Birding, instead, with cameras. Make no mistake about it: Birding with a camera is not the same as birding with binoculars. If I may conjure an analogy from earlier, you might as well play hockey with baseball bats or tennis rackets. It’s a whole new ballgame.

Birding expert Pete Dunne, in a provocative essay in Birding (“Facing the Digital Divide: Field Identification at the Crossroads,” August 2015, pp. 26–27), foresaw it. Is birding with a camera really field identification? Is it birding at all?

I believe that binocular-based bird ID and listing—in other words, the way we’ve been doing it for close to a century—is in the process of being deposed by camera-based sharing and celebration. That’s not to say we’ve walked away from a hundred years of rigor and discipline. On the contrary, I’m seeing more awareness than ever of molts and plumages, hybrids and subspecies, and so forth. And when it comes to insects and other arthropods, we’re seeing a full-on Great Awakening of knowledge and understanding. With easily obtained digital photos, you really can identify most skippers and spreadwings—and even moths.

The rigor and discipline are still there, yes, but the climate and culture feel different. It used to be “I saw a rarity.” Now it’s “I got this photo.” It used to be “Nice find” or “Good call.” Now it’s “Nice capture” or “Like.” And it used to be “I hope to add a species to my list.” But now it’s “I hope I get a nice photo to share.”

Something’s changed. In the early 1980s, the kid with a boxy black camera wasn’t going anywhere. In the mid 2010s and beyond, the kid with a boxy black camera is leading the charge toward new frontiers in birding and nature study.

Game on.

Acknowledgments

I thank Diana Doyle, Greg Neise, and Pete Dunne for helpful comments on an earlier draft of this article.

Two-tailed Swallowtail
Photo © Ted Floyd

Taxiles Skipper (female)
Photo © Ted Floyd

Lyre-tipped Spreadwing (male)
Photo © Ted Floyd
Binocular designs are similar in principle, a series of lens elements are mounted in a plastic or metal chassis, with a focusing mechanism and a means of adjusting to each eye. The dramatic range in prices is directly related to the difference in the raw materials, intensity of craftsmanship, and labor involved in crafting each piece. Obviously, to make the least expensive products, major sacrifices need to be made. At the highest levels one can expect the finest components and workmanship culminating in a true lifetime product with superior performance and maximum enjoyment and eye comfort.

Manufacturing the highest quality glass is a long process, much like creating a fine wine. High-density materials, free of imperfections, allow light to be bent at extreme angles without distortion. These ultra-HD quality glass elements are typically heavier than lower quality glass due to their density. They often contain fluoride (among other elements) and in extreme cases are “slow-cooled” in pressurized chambers where the temperature is reduced slowly over weeks.

An individual tube may contain as many as 13 individual lens elements, each of which is multi-coated on both sides with dozens of individual layers all working together to reduce stray light, eliminate glare, and transmit the maximum amount of usable light. Our strong photographic heritage, including invention of the first 35 mm camera over 100 years ago, insures...
that Leica products will have the truest color neutrality; a difficult task with those hundreds of individual lens coatings!

Each lens element is hand-inspected after every process and accepted for use or rejected if imperfect. Skilled artisans couple mated lens elements by hand, matching complimentary pieces to balance tolerances, to insure that optical centers are perfectly matched. The edges are hand-painted with black paint in order to absorb any stray light; the inner barrels of the chassis are powder-coated with dark color; and multiple baffles are added to insure the purest light transmission possible. Individual elements are assembled and mounted by hand, and finally secured into the metal body with robust locking rings. The prism assembly is wrapped in a metal cage and suspended within the metal body without touching the sidewall, offering maximum impact resistance. These are but a few of the steps taken in a premium optic that insure superior performance and unparalleled product longevity.

The new Noctivid binocular, expertly engineered and hand-crafted by Leica in Germany, is the culmination of more than 150 years of optical prowess and represents the new pinnacle of optical performance. Still maintaining the legendary ruggedness and waterproofing for which Leica is renowned, the new Noctivid binocular offers close focus capability to 6 feet, has the highest light transmission across the entire visible light spectrum, and boasts an uncanny depth of field and ultra-wide field of view. Six years in the making, Leica’s new flagship Noctivid binocular is inspired by the Little Owl (Athene noctua) which sees as acutely be it day or night. Allowing one to see every detail within the darkest shadow, the Noctivid’s fast focusing system insures no bird remains hidden, or sneaks by undetected. Take one for a test drive yourself today!

us.leica-camera.com/Sport-Optics/Leica-Birding
Chums hat clips and Original cotton eyewear retainer on the Pixiam River, Pantanal, Brazil; 21 July 2013.

Photo © Elise Faike.
Although long known for eyewear retainers and hat clips, the folks at Chums keep evolving and expanding their product lines. Today, they also make accessory cases, optical accessories, keychains, wallets, waist packs, watch bands, zipper pulls, stowaway straps, and safety equipment, among several more categories of practical, everyday gear.

**Eyewear Retainers and Hat Clips**

Inexpensive, relatively low-tech, made-in-the-U.S.A. Chums eyewear retainers have been “Helping Us Hang On” to our glasses since 1983. They were originally designed to keep sunglasses out of rivers, and I’ve been...well...Chums with them ever since I discovered them on the way to the Galápagos way back when. To this day, I consider them an indispensable part of my everyday wardrobe. I never go anywhere without my Chums to protect my eyeglasses and sunglasses, whether it’s walking my dog, kayaking, or birding.

The same is true for Chums hat clips (cap retainers), which consist of two tough clips on either end of a short cord. They make sure your favorite hat doesn’t blow away in the wind from a boat or off a canopy tower. Simply clip them from your hat to your shirt or jacket.

Chums eyewear retainers come in various configurations to fit almost any eyeglass frame and in a variety of fun tropical patterns and colors, like comfortable quick-drying cotton Originals; thin stretchy,
forgiving elastic Urbans for wire frames; and ropes. The Neoprene variety even floats! The eyewear retainers attach snugly to your glasses by sliding down the earpieces or with gripping rubber ends, and they usually have a bead or two to more tightly secure them onto your head. I like No-Tails because they’re shorter and don’t get caught on my collar or snap my binocular strap, and they fit under my bike helmet. The Adjustable Orbiter, a lightweight stainless steel version, is similar to No-Tails in this regard.

The Flyvines line, a Chums partner from Montana, recycles used fly-fishing filament to create eyewear retainers (which don’t have snugging beads) and other outdoor accessories. Flyvines products are hand-braided, so each piece is one of a kind.

### Accessory Cases

Different styles of versatile accessory cases are designed for various tasks and come in many sizes. They all help keep your essential equipment organized and protected. For example, the Storm series has waterproof pockets and bags while the Venture and Venture Lite series are water-resistant and can be used for cell phones, passports, or tools, like the Essentials case or Hex Roll-Up case. There are also toiletry bags. Neoprene and hard shell eyewear cases are available in solid colors and in camo, and handy Microfiber Storage Bags can be used as eyeglass cleaning cloths and as protection for flashlight lenses.

### Optical Accessories

Other optical accessories useful to birders include lens-cleaning pouches, which have a microfiber cloth for cleaning eyeglasses, binoculars, scopes, and computer screens. The cloth tucks into its own pouch to keep it clean when not in use. The lens-cleaning kit comes with a microfiber cloth and cleaning solution in a storage case. There’s even an eyewear repair kit.

### Keychains

Chums keychains are both fun and useful. Some of them are tools. There are the standard steel and aluminum carabiners with brightly patterned, colored webbing, and several more styles that can be used to clip your gear together. The Vortex utility wrench keychain has durable, hex-bit wrench openings and, like some of the others (Quencher, Hook, Brew Clip), doubles as a bottle opener. The Key Quiver helps organize and silence your keys in a small, comfortable package that comes with a Tasker tool, which has rulers and screwdrivers. Paracord keychains, like the Eiger carabiner, are made with 6 feet of 550-lb.-rated parachute cord with 12 core strands that can be unraveled in an emergency for endless uses, such as making a dog leash or becoming a fishing line.

### Additional Items

Other Chums items useful to birders include The Band, a line of comfortable sports watch bands in various patterns and widths; Interlocking and Zipquix zipper pulls for repairs and security; Stowaway equipment straps to organize your gear in the garage or attach it to your bike or backpack; the Acadia paracord bracelet; and wallets.

The slim Surfshorts wallet could be considered a Chums accessory case or a keychain, as it comes with a key ring. The Active wallets line includes Shoe Pockets, a small wallet you can attach to your running or hiking shoe; Wrist Wallets; Arm-band Cases for smartphones or iPods; and the Marsupial, a credit card-sized pocket with a keyring. Plus there’s a Floating Marsupial for the river. Surfshorts and Marsupial wallets come in many colors, including camo.

For more information, updates, and many more options, visit chums.com and chumssafety.com.

### Beyond Coastal

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I have some serious problems with an item that is supposed to be an essential component of the birding uniform—namely, convertible pants. They are such a cool idea in theory, but in reality, they are an exercise in frustration for many people.

A good pair allows you to start your day in near-freezing temperatures (even colder if you’re using the right kind of wool socks), and then, when the temperature rises above 75 degrees Fahrenheit, a quick flick of the fingers will whisk off one pant leg and then another so that you can enjoy birding or field work in a comfortable pair of shorts. After things heat up, moisture-wicking material helps keep sweat from being a bother yet is breathable enough to make you feel like you are in pajamas. Rather than convertible pants, I prefer to think of them as “adventure pants”.

There are two types of adventure pants. One style is known as “zip-off pants”; around the thigh of either leg is a zipper that allows you to unzip each leg and suddenly be wearing a pair of shorts. Most zippers have an “R” or “L” on them so you can know which leg is which when you reattach them. A word of warning to people who tend to wear them as shorts all the time: It is possible
to wash them to the point where they fade and do not match the legs, so make sure to wash all pieces at the same time. The other style is a “roll-up” design. You simply fold each pant leg up your leg and use the snap or button along with a strap to hold it in place. The upside is that you never have to worry about losing an unzipped leg during travel.

Most of these pants are made with some sort of quick-drying, anti-wrinkle material. Some are even infused with permethrin to keep ticks and mosquitoes away for a certain number of washes.

There are a variety of options for adventure pants, and the zip-off style can cost between $60 and $110. Columbia seems to have the most variety of sizes, both for height and weight, via its online store. REI has a reliable brand of zip-offs for average-height people, while prAna has roll-up styles that many taller people enjoy. Athleta offers some great hiking skirt options for those who choose to forgo pants while birding.

The Problems
If you have had a terrible experience with adventure pants or perhaps haven’t tried any new styles in the past five years, I encourage you to give them another try and to check out your options online. My first experience with adventure pants was while working for the National Park Service in 2008. Since I do quite a few canoe programs in my park, and temperatures in Minnesota in the spring and fall can be quite extreme over the course of one day, I tried out a pair…and they were the worst pants I ever tried on in my entire life.

First, they were unisex, which tends to be a major problem for women with more curvaceous bodies (more on this later). Second, the manufacturer
assumed that the only people wearing them would have the body of a triathlete. The zippers had no coverings, so they chafed the thighs. And most egregiously of all, the material was a humidity-trapping sauna that remained wet for hours. To top it off, they were high-waisted and scrunched at the ankles. The *I Dream of Jeannie* look is not something any professional person cares to rock while on the clock. Perhaps the designer thought this was a way to keep ticks out, but with this design, once anything with six to eight legs crawls up, it’s not coming out until you take off your pants.

**How To Shop**

After I finally found a pair of adventure pants that worked for me, I started asking around. I’m five feet tall and built like Joan Holloway on *Mad Men*: I’m a very specific body type. I was curious what others found to be the best pants. The bottom line is that quite a few people like the idea of adventure pants, but many of us struggle to find something comfortable that fits well.

Half the problem is finding a pair that is the correct length. Outdoor stores that have them in stock generally have only the “average” sizes and lengths available to try on. Being on the shorter end of the spectrum and a size 14, I’ve discovered that my size is rarely in a store, but it is online. And quite frankly, I’d rather try clothes on at home where I can incorporate some of my other outdoor accessories and go without a sales clerk trying to get me to purchase a puce button-down vest because, “OMG, you look so cute, and, like, you look like you’re under 30!”

A great place to start your search for adventure pants is Amazon.com. Just about every major brand is sold on this shopping site. There are extensive reviews from users, and many include their height and weight with the review. A few even include specific measurements for their waist and hips as well as a photo of them wearing the item. This can give you an excellent idea whether a pair will work for you. Amazon reviewers are incredibly candid and will warn you of problems that may arise like “muffin-top thighs”, a phenomenon that can happen when you sit. The material may stretch, but the zippers do not, creating horizontal bulges on each thigh. Quite a few styles are small in the crotch area, which can be quite embarrassing, especially while seated.

Though you can purchase on Amazon, I would only do so if the clothing is “Prime Eligible”. Amazon Prime is a membership service that insures hassle-free and fast returns. If you do not have a Prime membership, go to the clothing manufacturer’s online store, and work with them directly. You will more likely have a hassle-free return experience if the pants you ordered do not fit as expected. You can also find more options for different body types, such as short, tall, and extra-large sizes.

**One Brand Does Not Fit All**

Currently, my favorite brand for my body type is Columbia. The material is so soft that it’s almost like wearing pajamas. Flaps of material on the inside of the pant leg prevent the zipper from chafing your skin. The material is stretchy and spreads well when I sit down, avoiding the “muffin-top” look. Unlike quite a few styles out there, the pants hang lower on my hips, rather than being a high-waisted style. These pants dry very quickly, and a quick toss over a shower curtain or hotel hanger will smooth out most wrinkles. There is a petite women’s version online, meaning I can find a pair that doesn’t bunch at the ankles.

**Special Considerations for Women**

When I started asking around about feelings on trousers that convert into shorts, my male friends were under the impression of “Whatever is on sale and in my size works for me.” It’s my experience that women have a much more complex relationship with adventure pants, and as useful as they can be in the field, it’s not a straightforward relationship. Most of the women I interviewed were of a similar mind. Female bodies function differently and have weight distributed in ways that most men do not. Some women have thicker thighs, some rounder bellies. It’s a challenge to find a pair of pants that can be roomy enough for ease of movement in the thighs while not being overly roomy in the belly area. Or perhaps you will find a pair of pants that fits in the waist, only to have them be too long in the leg.

That said, more than one woman has found that men’s styles are the way to go. Because there is more than one female body type, and because I tend to avoid men’s pants, I asked some female birder...
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Adventure Pants

The right pair of adventure pants is a savvy traveler’s secret weapon. You can tick off Namaqua Dove and Namaqua Sandgrouse in the Israeli Negev while wearing a tasty T-shirt and fleece, engage in a casual afternoon stroll through a market in Jaffa, and top off the day’s birding by sipping lifer cocktails and toasting your new birds at a Michelin-rated restaurant. All you need is a fetching scarf wrapped ‘round your neck to look simultaneously chic and rugged. At night, you can wash the pants in your hotel room sink, hang them to dry in even the most humid Central American countries, and find them perfectly dry and unwrinkled the next morning. These pants are all you need for every occasion, with their sleek hidden pockets to hold currency, batteries, and phones.

If you’ve had bad experiences with adventure pants, don’t give up. There are comfortable, functional ones out there, both online and in outdoor stores. Just make sure that they fit your body and are comfortable before purchasing them. It’s worth the effort.

Alternatives

Some choose to forego adventure pants and go straight for skirts. If that idea appeals to you, there are options. When I’m birding somewhere ticks are not an issue, I frequently go birding in a skirt. Jennie Duberstein adds, “I wear skirts in the field all the time. They are way easier for peeing in the woods. Or desert. Or wherever you are.”

I agree that skirts offer an easier way for women to “go” outdoors compared to pants. (For more on this topic, see my article in the 2014 issue of Birder’s Guide to Gear.) And with the right pair of tights, skirts can even work in cold weather. Athleta and REI both make hiking skirts with shorts built into them. They’re fine but defeat the purpose of bathroom utility. I find that any skirt which feels good to you and has pockets will work just fine as a hiking skirt.
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Birds hit windows. It’s such a common phenomenon that it’s rarely questioned. It’s just a fact—but it doesn’t have to be. Solutions are right at our fingertips, and some are more surprising than you’d think!

Between 100 million and one billion birds die annually in the U.S. from glass strikes (Klem 2009). Most people seem to think of strikes as separate, isolated, incidental occurrences, but unfortunately, collisions constitute an alarmingly widespread phenomenon that poses a hazard to some of our most at-risk and declining bird populations (Klem 2014). Birders are in a great position to address birds hitting windows. We live and work where bird strikes happen, we have diverse connections, and we have the motivation to tackle conservation challenges where we see them. Or, perhaps, see through them. We must take the initiative and fix problem windows.

If you know of a window that has been hit by a bird, it’s likely not the first time for that window and probably will not be the last. Doing something to modify the window now will save bird lives in the future. This applies at home, at work, at school, and at any structure that has glass… yes, even bus shelters! The gear required to make these
changes can fit any budget and almost any aesthetic preference, and it requires only a few spacing guidelines to be effective. It’s just a matter of understanding how and why collisions happen, as well as the dynamics of your particular window(s) of interest. For example, a “lights out” (turning a building’s lights out from 10 p.m. to 5 a.m. during spring and fall migration) approach will reduce 80% of the bird mortality at a skyscraper but will do nothing for yard strikes. Similarly, even densely placed window clings will not prevent territorial aggression when a bird sees its reflection in glass.

The only 100% effective prevention method is to make the glass appear solid and non-reflective. Placing markings on a window is one effective way to accomplish this, but note that it becomes less effective as the spacing between markings grows wider. (The American Bird Conservancy is testing this method at their Powdermill research site; see collisions.abcbirds.org to find out about the fantastic research they’re doing.)

The Compounded Problem

Making windows safe for birds is more than just helping any given bird avoid an unnatural death at a pane of glass. It also reduces the likelihood of stunned birds being caught by cats, or by any of a number of other opportunists. Gulls, crows, dogs, raccoons, and even squirrels may prey on downed birds. Many summer collision victims show physiological indications of breeding, such as well-developed brood patches, leaving one to wonder if a hungry nestling is nearby or if a second nesting attempt has been thwarted. The healthy and fit breeding population of migratory birds not only face windows as an obstacle during post-breeding dispersal but also in the fall and again in the spring… every year.

What can you do to make a tangible effort in saving birds? Look no further than your nearest windows. Supplies to handle a variety of situations are listed below. The first part is for live or dead birds requiring immediate action. The
Avoiding Bird Collisions

second part outlines some of the available options for prevention, with notes about their permanence, cost, and effectiveness. Some can even be implemented seasonally. For more information on the how and why of collisions, and what to do with an injured bird, check out the Cornell Lab of Ornithology’s “Problems with Windows” webpage (tinyurl.com/cornell-windows).

Basic Emergency Kit for Surviving Casualties
- Brown paper bag
- Napkin or tissue to put in brown paper bag with the bird
- Phone number for certified wildlife rehabilitator
- Sense of calm urgency; contact the rehabber immediately

Note that it is illegal to keep native bird species, even if you’re trying to help them recover. Do not try to feed any injured bird unless you are directed to do so by the rehabber.

Forensic Kit for Dead Birds
- Napkin/paper towel/tissue
- Sealable plastic bag
- Permanent marker
- Freezer
- Phone number for collection/museum/nature center (permits strongly suggested)
- Paper/index card, on which to record the time, date, location (be as specific as possible: E side of X building at 1200 This Road, City, County, State), collector’s name, species if known, cause of death if known

You may be wondering why you should pick up dead birds that hit windows. Every dead bird contains data. “Teaching museums with finite resources...do not actively collect vertebrate specimens such as birds. Instead, the growth and usefulness of...collections depend on donations of salvaged specimens, the highest quality of which are window-killed specimens”, says Tonya Haff of

Top: Buildings surrounded by low-quality habitat are still likely to be struck by birds during migration. Poor habitat, however, may lower the odds of summer and winter strikes due to lower bird density. Blinds may help prevent some collisions, but this window has a much stronger reflection than the blinds can overcome. Photo © Heidi Trudell

Bottom: ABC Bird Tape is an easy and economical way to make interesting visual patterns that are within the 2”x4” inch spacing guidelines. Photo © Mary Gustafson
Researchers can use tissue samples, stomach contents, and additional factors to study a dizzying array of information. Specimens can be tested to help us understand the impacts of pesticides, among other things. For example, eggshell specimens from museums were instrumental in helping link DDT to bird declines.

**Cost Estimates Based on a Large Window or Glass Door**

$ = free or very inexpensive, depending on what supplies you already have

$$ = inexpensive but reasonable (depending on the scale of your project)

$$$ = your generous budget is the limit

**Temporary Prevention/Concept Proofing Materials for Marking the Outside of the Window (may stain, smear, and/or fade)**

$ • Bar of soap, lipstick, fake frost, window paint, highlighter, dry-erase marker, string, tape (such as electrical, masking; beware of residue)

$$ • UV liquid (Window Alert or craft paint)

NOTE: Vertical stripes should be no more than 4 inches (10cm) apart. Horizontal stripes should be no more than 2 inches (5cm) apart. Checkerboard patterns of dots should follow similar spacing conventions. Include a healthy dose of creativity with your material of choice!

**Temporary (or Long-Term) Materials for the Inside of the Window**

$ • Checkerboard of Post-it® notes

$ • Hang one CD or DVD per square foot (30cm)

$$ • Install highly contrasting curtains (closed) with a busy, bold print
Avoiding Bird Collisions

NOTE: These may be very visually distracting. If the exterior surface of the window is mirrored or highly reflective, these solutions may not be visible from the outside at certain times of the day due to shifting light, or may not be visible at all, rendering them ineffective.

**Long-Term/Semi-Permanent Prevention for the Outside Surface of the Window**

- **$§** American Bird Conservancy (ABC) Bird Tape*, window film (CollidEscape, Feather Friendly, and similar)* ABC Bird Tape is not Bird Scare Tape, and since the writing of this article, CollidEscape has taken over manufacturing and distribution of ABC Bird Tape. Ordering ABC Bird Tape through CollidEscape may be cumbersome.
- **$§** Acopian BirdSavers (“zen wind curtains”), which can be installed seasonally or permanently
- **$§** Window clings, stickers, decals (spaced no more than a hand-width apart)
- **$§** Netting (not appropriate for large windows, may not be appropriate in all seasons in all climates, may entangle birds if improperly installed), may be seasonal or permanent

NOTE: These options are often available at wild bird or garden stores. They may be less visually obtrusive when applied as abstract stripes or dots rather than stamped shapes.

ALSO CONSIDER: Move your feeders!

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Top: Stores that sell seed and feeders may have collision prevention products for sale. This display of decals, raptor silhouettes, UV liquid, and Bird Tape is at a Wild Birds Unlimited. Packaging and store suggestions may not accurately convey the amount of coverage required to prevent strikes. Photo © Heidi Trudell

Middle: Even buildings that are less than 50% glass on the exterior surface can be prone to bird strikes, regardless of window tint. If Acopian Bird Savers were installed, only three or four strings per window would be required for the upper windows. The lower windows are set back enough that items on the inside of the window would be visible, which is ideal for student art, sticky notes, CDs, etc. Photo © Heidi Trudell

Bottom: The “corridor effect” is especially apparent in this photo of a church room that has attempted to prevent window strikes with raptor silhouettes. This attempt is ineffective but would prevent most strikes if the gaps between the silhouettes were 2-4 inches apart. Photo © Heidi Trudell
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Avoiding Bird Collisions

Feeders should be placed 3 feet (or closer) from the glass. Strikes will still happen but at much slower speeds, resulting in fewer injuries and deaths. Another strategy is to place feeders well away from windows.

**Structural/Permanent Prevention**
- Screens, solar screens
- Etched/frosted glass patterns (AviProtek and similar)
- Low-risk glass (ORNILUX and similar)

NOTE: See birdsmartglass.org for a comprehensive review of glass-altering products and lower-risk glass and their relative effectiveness.

**Myth Busting**
- Dirty windows are ineffective.
- Distress calls and noise deterrents are ineffective.
- Falcon silhouette stickers are ineffective unless spaced very close together.
- Plastic owls are ineffective.
- Plastic snakes may deter territorial strikes, but are ineffective for everything else.

Preventing strikes has a much bigger impact than just reducing the “thump” noises and the visible body count. It’s not a natural death for the birds (Klem 1989), and those that die at windows are the healthy birds in prime condition for breeding, post-breeding dispersal, and migration. Birds that are already sick or injured are not magically drawn to windows to die. Even if a stunned bird flies away, half of the survivors will die of their injuries away from the window later (Klem 1990).

A wide variety of bird species die in collisions with glass. While hummingbirds and songbirds are among the most frequently found casualties during migration, strange things happen, like the Lights Out Baltimore team finding a Yellow Rail in April 2016. Thank goodness that bird survived and was released, but most are not so lucky.

Most residential buildings kill up to 10 birds per year (Klem 1979), but campuses and office buildings average more than double that (Hager et al. 2008). Technology continues to improve the structural integrity of plate glass, and its increased use in commercial building design is staggering. This architectural emphasis on glass combined with scenic landscaping is creating a deadly combination for birds.

Groups all over the continent are seeking to make bird-safe buildings a reality. Toronto’s Fatal Light Awareness Program (FLAP) and the American Bird Conservancy are leading the push and reaching out to architects as well. Bird-friendly design has even been incorporated into the U.S. Green Building Council’s celebrated Leadership in Energy and Environmental Design, or LEED, certification (Chapter 55). Portland, Oregon, is an excellent example of a city that is not only part of the Urban Bird Treaty Cities program (organized by U.S. Fish and Wildlife Service) but also has bird-safe building regulations in place.

Unfortunately, we need look no further than the new Minnesota Vikings football stadium controversy to see that bird-safe measures are resisted when even moderately inconvenient. Plans for a highly reflective glass stadium were protested by local Audubon and Lights...
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Avoiding Bird Collisions

Continued from page 32

Left: The Ypsilanti District Library has soaring windows that face (and reflect) a wooded area to the east. In early 2016, the library installed a sound system that plays distressed crow calls and hawk calls every ten minutes. While it initially drew the interest of jays and a Red-tailed Hawk, the system did not eliminate or even reduce strikes. Photo © Heidi Trudell

Out chapters, which pushed for bird-safe glass to be incorporated. Concerns were met with apathy and disbelief. The $500-million taxpayer contribution was fully half of the $1-billion budget, which has continuously crept upward. The Vikings' contribution of $518 million towards “enhancements” did not earmark $60 million for bird-safe glass, and instead of addressing collision risk, their Frequently Asked Questions page boasts consideration of local landscapers and recycled material use, which are basic expectations for a project of that scale.

Ultimately, glass poses a very preventable threat to bird populations, and we can address the issue in a variety of ways, starting by implementing bird-safe window practices at our homes and in our communities. When we find dead birds, we can donate their bodies to collections for research. And when we find problem buildings, we can work together to make solutions a reality.

Right: This image shows how confusing glass is to birds: We see the ceiling of the building only if we look closely, but the dominant image is of trees and sky. The dusty print in the middle is the result of a young Mourning Dove that died as a result of the impact, most likely from brain hemorrhaging. Photo © Heidi Trudell

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**USA Today Main Campus, © USA Today 2016**

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**Facts and Figures page boasts consideration of local landscapers and recycled material use, which are basic expectations for a project of that scale. Ultimately, glass poses a very preventable threat to bird populations, and we can address the issue in a variety of ways, starting by implementing bird-safe window practices at our homes and in our communities. When we find dead birds, we can donate their bodies to collections for research. And when we find problem buildings, we can work together to make solutions a reality.**

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**Photo © Heidi Trudell**
Suggested Reading, Links, and Products

  audubonportland.org/issues/hazards/buildings/birdsafe
birdsmartglass.org
collisions.abcbirds.org
  Stackpole Books.
FLAP.org
Horton, J. 2013. *15 Products that Prevent Window Strikes.*
  birdwatchingdaily.com/featured-stories/15-products-that-prevent-windows-strikes/
  fws.gov/birds/grants/urban-bird-treaty.php

References

Five years ago, I was wandering through my Black-throated Gray Warbler study site in Central New Mexico and stopped dead in my tracks at the sound of a bird song. It was the height of the breeding season, and familiar songs were filling the air. But this one was different, and I knew it didn’t belong.

It was an eerie, steady, flute-like whistle that could be only one thing: a Varied Thrush. Varied Thrush is rare in central New Mexico, particularly singing ones in late spring. I pished softly and, after getting knock-out views of the gorgeous songster, called a buddy of mine who was doing a county Big Year. “Where is the bird?” he asked. “Uh. Well. Ummm.” My reply left a little to be desired. I knew these woods like the back of my hand but had no way of describing the exact location to someone who didn’t know and wouldn’t recognize the off-trail landmarks I had stored in my mind. Needless to say, my friend never found that Varied Thrush.

So where did I go wrong? Well, to begin with, finding a rare bird off-trail in the mountains isn’t incredibly conducive to a productive chase. But short of asking this bird to be kind to birders and hang out near a trail, I could have given far better instructions to my friend. Heck, I could have used my phone to take a waypoint and then texted it right to him.

Global Positioning System (GPS) technology and availability has grown by leaps and bounds over the past couple decades. In the past five years alone, nearly all of us have taken to carrying a GPS with us at all times in the form of a smartphone. So if we’re all carrying a GPS around anyway, why aren’t we using it more? Maybe some of us don’t know the best way to get started or even what we can actually do with them. Here I present a brief overview of the types of GPS you might want to consider and a few ideas to get you on the road to using a GPS for better birding.
GPS For Better Birding

Intro to GPS
GPS was developed by the U.S. military and has been available for civilian use since the mid-1990s. This system utilizes a series of satellites and atomic clocks to accurately calculate the location of a receiver based on the time required to send and receive signals. Many of us are familiar with using automotive GPS (“sat nav”) to navigate through a city. But the applications of GPS in birding go beyond providing us with the fastest route to a nearby birding area. Two basic types of GPS technology are readily available and effective for birding. As with all things in life, each type has its pros and cons, but both can record waypoints, tracks, and routes with relatively high accuracy.

Handheld GPS
Handheld GPS units are stand-alone devices that are lightweight, portable, and rugged. In-field transfer of waypoints and routes is more cumbersome and less user-friendly than with smartphone apps. The process requires Bluetooth, a hardwire connection between units, or a smartphone app with an available cell signal. Handheld GPS units come preloaded with basemaps that display general land features, roads, and some trails. High-resolution U.S. Geological Survey (USGS) topographic maps, aerial imagery, and other map layers are available for download for most locations throughout the world, and provide even more detail and information for users on the ground.

Battery life tends to be far superior with handheld GPS units over smartphones run in any mode other than airplane. Most units take no more than two AA batteries and will go for days on fresh batteries. Along the way, you can mark points and tracks, follow routes, and view maps. Most handheld GPS units also have a built-in compass and barometric altimeter. They can track your distance, speed, elevation gain/loss, and other travel metrics.

Most ornithologists and scientists use handheld GPS in the field because they are powerful spatial data-collection tools. Data gathered with handheld GPS units can be viewed and processed using software that comes with the unit. Points, tracks, and routes can be easily uploaded into a geographic information system (GIS) for more sophisticated manipulation and map generation. The amount of analysis on the back end of data collection is limited only by the creativity of the user. Many GIS specialists utilize ESRI’s ArcMap for spatial data processing and analysis. This piece of high-powered software can be used to display, edit, manipulate, and explore geospatial data. I’ve used ArcMap to draw Black-throated Gray Warbler territories, to note nest locations within territories, and even to calculate minimum, maximum, and average distances between active nests to better understand how females in adjacent territories interact. This type of data manipulation is much more difficult with smartphone apps because drawing the data out from the start is a lengthier process. The high cost of these types of geospatial processing programs, coupled with the
Smartphone Apps

A number of smartphone GPS apps are available for iOS, Android, and Windows phone platforms. App cost and functionality vary widely. Many apps are useful for both domestic and international use (including all of the apps mentioned in this article), making them effective for travel near and far.

Free apps allow the user to mark and share waypoint coordinates via email or text, but they often don’t provide much else in the way of route-tracking or waypoint storage. Among these apps, Google Maps is probably the most popular, but its maps require a cellular connection to render—something that may or may not be available while in the field.

Several low-cost apps, such as MotionX GPS for iOS ($1.99), offer downloadable maps that can be used in the field without requiring a cellular connection. This requires forethought in terms of field preparation to ensure maps are on your phone when you need them. MotionX GPS allows for excellent route-tracking and waypoint marking. These data can be shared via email or text while in the field with an available cellular connection.

More high-powered apps, such as Gaia GPS ($19.99), are available with a higher price tag. These apps allow for a wide array of downloadable map layers, including detailed USGS topographic maps that are excellent for backcountry use. These maps are of the same quality as those you would download for a handheld GPS unit and, when coupled with advanced route-marking, can provide nearly the same user experience as a handheld GPS unit. Essentially, this equates to spending a mere $20 to get something that is very similar in field functionality to a several-hundred-dollar GPS unit.

Many people are under the false impression that if you are out of cellular range, your phone’s GPS will not work. The GPS chip within a cell phone allows it to function even in airplane mode, and the GPS function in a cell phone can be as accurate as, or even more accurate than, a handheld GPS unit. One of the main issues with using a cell phone as a primary GPS is battery life. You’ll likely want to invest in an external battery backup/charger if you plan to be out for several days or do not want to run your phone in airplane mode while in the field. For those of us who also eBird in the field, consider that you’ll be using your phone for that activity, too, and plan for extra battery drain as a result.

Once you get home, if you want to make pretty maps based on the waypoints you gather, your options will be more limited using smartphone apps than with a handheld GPS unit. Smartphone apps are better suited for unit-to-unit sharing or individual waypoint marking, and it is this feature that has a distinct advantage over handheld GPS units.

GPS for Reporting and Sharing Sightings

My Varied Thrush anecdote is a good example of reporting a bird sighting that could have been greatly enhanced with a smartphone app. If I’d had MotionX GPS on my phone at the time, I could have marked the waypoint and instantly texted it to my friend. With a single click on his end, he could have navigated himself directly to the last known whereabouts of the bird. He might have missed it anyway (a real possibility when chasing rarities), but he would have been in a much better position to successfully find it.

Sharing bird sightings on listservs or Facebook pages has been significantly enhanced with the use of Google Maps and similar smartphone apps. In May of this year, a Curlew Sandpiper showed up in a flooded field on the west side of Toledo, Ohio, during the Biggest Week in American Birding festival. My friend took out her iPhone, clicked the Google Maps link in the Twitter feed, and the “Google Lady” navigated us to the spot with ease. All we had to do was jump out of the car and scan the flock to find the bird.

Using Gaia GPS or handheld GPS units, you can download high-quality topographic maps for field use. Trails are not as well marked on these maps, but Earth features are. When birding and hiking in a mountainous landscape, good topographic maps can help win the day when it comes to navigating tricky terrain.
notes with additional information. Bird records committees might want to know exactly where you had a rare bird; GPS waypoints are ideal for documenting where a particular field recording was made; and documenting personal bird sightings with waypoints is a good way to ensure that you’ll remember exactly where to go the next time an out-of-town guest asks to see a Black-chinned Sparrow or a Henslow’s Sparrow. You could take detailed notes with directions to a specific birding location, but having a GPS waypoint that you can easily navigate to with a single click is a much more efficient way to get yourself there quickly.

**GPS for Safety**

Some of us are spatially challenged. I know a good number of birders who couldn’t navigate their way out of a paper bag, and though I make light of it at times, this can be a serious and life-threatening concern. Taking a waypoint or “dropping a pin” at the car or trailhead before you embark on a hike can spare you from a night out in the woods if trails get complicated and you get turned around. I remember a particular backpacking trip in the Bob Marshall Wilderness of Montana, where our trip leader was having issues getting us back on the right trail (somehow, U.S. Forest Service trail maps are never totally accurate). After wandering around for a while and climbing hill after hill to get bearings and try to pin down our location, I remembered I had marked the trailhead on my GPS. He had never used a GPS before, so I set it to navigate us back, handed it to him, and told him to follow the arrow. Within a half hour or so, we were back on trail and back on track to make the date I had with a Coke and a juicy hamburger after six days in the backcountry.

Having a GPS on hand is not only a good way to navigate yourself to places you want to go, but it can also come in handy if you have to give someone else your exact location. If you’re out on a birding adventure and need emergency medical care, being able to provide your exact position, thanks to GPS, can facilitate help arriving quickly and before it’s too late.

I’ve only begun to scratch the surface of the applications, uses, and availability of GPS for better birding. I sincerely hope that if you haven’t already started to incorporate waypoint-marking and GPS use into your regular birding adventures, you’ll give it a try the next time you’re out in the field!
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