

THE SANDERLING



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Cliff-Dwellers of the Colorado Plateau:

Reflections on Birdwatching in Mesa Verde National Park

by Michael P. Montgomery

Eight hundred years ago, the Mesa Verde region in southwestern Colorado was inhabited by communities of Ancestral Puebloan Indians. Today, the region is a national park, its pueblos derelict and their builders departed. But tucked beneath sandstone overhangs, the park's famous adobes are as inhabited as ever—not by humans, but by swallows and swifts.



*Spruce Tree House, one of Mesa Verde's more extensive cliff dwelling complexes.
Photo by Leslie Patten.*

In late June, I experienced this firsthand. As I stood overlooking Cliff Palace, Mesa Verde's largest and most frequently photographed structure, dozens of violet-green swallows and white-throated swifts interposed themselves between me and the Palace, darting to and fro above the wooded canyon.



A violet-green swallow in flight. Photo by Tom Benson, accessed via Flickr.

Presumably, the birds had nests nearby, if not in the Palace itself, then on the cliff above it, or in the nooks and crannies of abandoned granaries that the Puebloans (formerly known as Anasazi) had built into the rock.

Neither bird species was new to me, but the novelty and poetic propriety—one group of cliff-dwellers succeeding another—left a lasting impression.

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Later that same day, while hiking to a place called Petroglyph Point, I again encountered violet-green swallows. As before, they seemed to have deliberately chosen to nest where the Pueblos had left their mark, this time in the form of a rock wall adorned with carvings. On one side of the display, two birds had been drawn, face to face, bills nearly touching. Immediately adjacent to them was a human handprint.



Photo by Michael P. Montgomery.

Thinking back to this arrangement now, I am struck with a sense of historical continuity. Visit after visit, year after year, Ancestral Pueblos chiseled art into rock. Meanwhile, summer after summer, swifts and swallows nested in the cliff above. Today, the process continues, after a fashion. There are still nesting swallows, and there are still visiting artists, equipped not with chisels, but with cameras, pens, and paper, as I was.

To my mind, the proximity of the handprint and bird petroglyphs captures this overlapping and enduring dual presence: people and birds, closely allied, consciously or unconsciously following in the perennial footsteps, or wingbeats, as it were, of their predecessors.

SUMMER CALENDAR OF LECTURES

All lectures begin at **7:30 p.m.** at the Pacific Grove Museum of Natural History. Doors open to the public at 7 with refreshments and socializing. Our monthly board meetings are held from 6-7 beforehand.

Tues., July 9 – Black Oystercatchers and Sea Level Rise, with Amanda Preece and Rahil Ryder

Amanda and Rahil will discuss their work on the effects of sea level rise on availability of black oystercatcher habitat in Pacific Grove. Both masters students at California State University Monterey Bay, Amanda and Rahil took on the challenging topic of sea level rise for their course in remote sensing.

Drawing on a combination of satellite imagery and other remotely sensed data, they used the program ArcGIS, in conjunction with sea level projections from the National Oceanic and Atmospheric Administration and additional help from our local Black Oystercatcher Monitoring Project, to develop maps that indicate which sections of oystercatcher territories are at risk from future sea level rise.

Tues., August 13 – Wild Tanzania, with Rita Carratello and Don Roberson

The Usambara Mountains of northeastern Tanzania are not usually on anyone’s tourist route. Roads are bumpy and infrastructure poor. But because of its isolation, the region is home to unique flora and fauna, including endemic birds and endangered species to track down. With the help of an experienced local guide, Don Roberson and Rita Carratello visited the Usambara Mountains in June of 2018. They also made a return visit to two favorite safari parks, Tarangire National Park and Ngorongoro Conservation Area, to search for East Africa’s iconic mammals.



Seeing wild elephants, like this bush elephant in South Africa, is always one of the highlights of a visit to Africa. Photo by Blake Matheson.

Tues., September 10 – Journaling as a Way to Experience Wildlife and the Natural World, with Marley Peifer

Do you want to take your birding to the next level? Do you want to better remember the species, patterns, and behaviors you see in the field?

A new pair of fancy binoculars might be nice, but there is another, more important tool every birder should know. Join Marley Peifer in this fun class where we will explore the powerful ways nature journaling can make you a better birder and naturalist.



Artist and educator Marley Peifer showcasing his nature journal.

Beginners and experienced participants alike will leave this class empowered with tricks, techniques, and the mental mindset to accelerate their learning and enjoyment in nature.

Marley has been leading nature journaling groups at least once a month in the North Bay for the last three years. In addition to his excursions in California, he has also nature journaled in the Ecuadorean Amazon and cloud forest, the Serengeti, and the seasonally dry tropical forests of Guanacaste, Costa Rica.

Marley lives in Sebastopol, California, where he practices gardening, wildlife tracking, birding, and painting. He strives to reintegrate art with science, a synthesis he develops in his journaling and teaching. Nature journaling has been a fundamental practice for Marley ever since he discovered how it improved his observation and learning.

MONTEREY AUDUBON’S 2019 HIGH SCHOOL SCHOLARSHIP

Monterey Audubon Society seeks to encourage our youth in becoming good natural scientists. To that end, we have been offering scholarships to graduating high school seniors in Monterey County for the last nine years. We award first (\$1500), second (\$1000), and third (\$500) place for winning essays. The applicants’ essays focus on the

reasons for their choice of a future career in the natural sciences. The scholarship committee also checks the students' science grades and extracurricular activities. It is encouraging to see that many students are interested in environmental science. This year's winner, **Zeke Spooner**, whose first-place essay is included in this issue of the Sanderling (see below), shows that we can look forward to a fascinating career for him. (As a footnote, the current editor of the Sanderling, Michael Montgomery, is a past first-place winner.)

—Jan Scott, MAS Scholarship Chair

Why I Want to Pursue a Career in the Natural Sciences

by Zeke Spooner, Carmel High School Class of 2019

I have a bad feeling that experts in this country aren't getting their voices heard. Where are the biologists, the engineers, and the geophysicists in Congress? I see lawyers, politicians, businesspeople, and more lawyers. Half of our senators and about 40% of our representatives in Congress have a prior occupation in law.¹

Astrophysicist Neil DeGrasse Tyson expressed his frustration for this on *Real Time with Bill Maher* in 2011, saying, "There are no scientists? Where are the engineers? Where's the *rest of life* represented here?"²

To me there is something undeniably beautiful about science; from intermolecular forces to biogeochemical cycles, the complex systems of the world amaze me. I find science not only fascinating but necessary to solve problems such as reliable clean energy and ocean acidification. My interest in the subject started when, as a kid, I first heard the wisdom of Carl Sagan: "We're made of star stuff."³

Sagan's appreciation for the way the universe works and the way matter and energy flow inspires me to think the same way about science. I want to better appreciate and discover more about this "star stuff"—I want to be an environmental scientist. Luckily for me, I've grown up in one of the richest hubs of science in the country, California's Monterey Bay.

I've lived on the Monterey Peninsula for my whole life. From Point Lobos to the Monterey Bay Aquarium, this place has a rich history of science that has continued into the present day, so I've had a lot of opportunity to learn about and advocate for the environment.

I've volunteered at MEarth, a local nonprofit committed to sustainability in education and energy use, by helping with projects in the organic garden. I'm a leader in my school's environmental



The logo of MEarth, located next to Carmel Middle School in the Hilton Bialek Habitat.

¹ Congressional Research Service. "Membership of the 115th Congress: A Profile." Version 24, 20 December 2018.

² Tyson, Neil DeGrasse. *Real Time With Bill Maher*, created by Bill Maher, season 9, episode 3. HBO. 4 February 2011.

³ Sagan, Carl. *Cosmos*, written by Carl Sagan, Ann Druyan, and Steven Soter, episode 1, "The Shores of the Cosmic Ocean." PBS. 28 September 1980.

club, in which I research current events and local opportunities for club members; eventually, this led me to join the school district's Environmental Responsibility Team to help promote sustainable practices for the young people of Carmel. I've spoken about marine chemistry at a Monterey City Council meeting to show my support for a carbon fee. I also take high-level science courses like AP Chemistry and AP Environmental Science so I can be more informed on the relevant scientific topics.

The presence of local nature in these experiences—for example, when I collect data for citizen science on field trips—makes them even more meaningful. I love the beautiful beaches and rocks and forests that have always been a part of the Monterey Peninsula—a stark and primeval reminder of nature's presence.



*A Monterey pine in Point Lobos State Park.
Photo by Leslie Patten.*

But the peace that I feel when surrounded by Monterey pines has slowly disappeared. The pine forests where I live have been brutalized by bark beetles, who have spread north due to warmer temperatures. I've watched as, one by one, the trees in my backyard wither away and die, right in front of my eyes.... More than half of them are gone now.

At the 2018 High School Ethics Bowl at UC Santa Cruz, I recall a professor of philosophy promoting his idea that the current important discussions everywhere, including the government, consist of opponents arguing and fighting to eventually settle on some compromised half-truth. All of the lawyers in the legislatures and agencies are trained to argue for their ingrained position, not to think anew about what is right and what will be the best for all.



I look around at the skeletons and stumps of pine trees and I believe that scientists who immerse themselves in the planet's ecosystems have the tools needed to make excellent environmental policy decisions.

I want to be an environmental scientist, and I also want to be a congressman, an EPA official, or the Secretary of the Interior. I want to become an expert—and I will make sure my voice is heard.

Zeke Spooner will be attending the University of California, Davis, starting this fall. Photo courtesy of Zeke Spooner.

MESSAGE FROM THE PRESIDENT

High summer can be a time of relative quiet for birders on the Central Coast. Breeding birds fledge chicks, and migration slows briefly in late June and early July, only to accelerate quickly with the southward passage of Arctic-breeding shorebirds by August. It is a good time to reflect on the state of birds regionally and globally, and commit anew to actively conserving the wild animals that so enliven our days.



Dark-eyed juncos are among the Monterey Peninsula's most ubiquitous breeders and year-round residents. Photo by Blake Matheson.

While concerns about the implications of accelerating climate change tend to dominate the “Environment beat” of most mainstream journalism these days, a collapse in our planet’s wildlife populations and biodiversity is well underway and has been for some time.

A recent, widely reported study by the United Nations (www.un.org/sustainabledevelopment/blog/2019/05/nature-decline-unprecedented-report/) found that one million species are on track for extinction by century’s end.

More than an abstract number, these species include the same charismatic and heraldic animals that have captured people’s imagination since prehistory. From orangutans to ivory gulls, much of the planet’s most beautiful wildlife is poised to disappear within our lifetimes. Radical, transformational policy changes at the local, national, and international level are now required if humanity is going to slow or reverse the planet’s collapse in biodiversity.

And while climate change does increasingly threaten the planet writ large and the stability of human economies, other direct human pressures are already driving species toward extinction, especially, in the case of birds, conversion of natural landscapes to agricultural and industrial use, the spread of invasive species, and fatalities from window strikes.

Nor is the biodiversity crisis something that just exists far away from home. The conversion of Central California’s last remaining oak savanna and grassland to agriculture, energy production, and housing developments continues at a rapid pace. An entire suite of species, from the golden eagle

NUMBER OF GLOBALLY THREATENED BIRD SPECIES AFFECTED BY DIFFERENT TYPES OF INVASIVE ALIEN SPECIES



MAIN WAYS IN WHICH IAS AFFECT GLOBALLY THREATENED BIRD SPECIES

Figure from BirdLife International’s 2018 report, “*State of the World’s Birds*.” Note the prominent threat to native birds from introduced animals such as house cats and starlings.

to the San Joaquin kit fox, continue their decades-long decline as a result.



A golden eagle and San Joaquin kit fox in the grasslands of Central California. Photos by Gregory "Slobirdr" Smith, accessed via Flickr (www.flickr.com/photos/slobirdr).

On the coast, the Monterey Peninsula's cover of native pine forest is increasingly fragmented, with only isolated pockets remaining. Pet cats, nationally responsible for the death of hundreds of millions of birds each year, remain a pervasive, chronic threat. Untold thousands of birds continue to die by colliding with the glass windows and doors that envelop our homes.

These are all conditions that can be controlled and even reversed if the public will exists. The time to engage is now. What can you do? Plenty.

- a) Consider adding bird strike prevention measures to your windows and doors. Check out the American Bird Conservancy's recommendations (abcbirds.org/get-involved/bird-smart-glass/).
- b) If you have a pet cat, ensure it is spayed or neutered, and keep it inside, preferably always.
- c) Protect and enhance the native habitat in your yards and gardens. Plant native species. Demand that local leaders prohibit tree trimming and removal during peak nesting season.



Native shrubs like this dune buckwheat provide fantastic habitat for an abundance of local wildlife, especially native pollinators, and are hardy and easy to grow in our coastal climate. Photo by Michael P. Montgomery.

- d) Engage elected officials, and tell them your support is dependent on their commitment to protecting what remains of our regional ecology.

In addition to taking action, it is also important to get out and enjoy the resources that remain. Go birding!

Bear witness to the beauty and dynamism of birds, and recognize how experiencing them enriches your life on the Central Coast.

—Blake Matheson, MAS President

Monterey Audubon Society Membership

Monterey Audubon and National Audubon are separate but affiliated 501c3 charities. You can join either or both by clipping and mailing this membership card with your dues and any additional Monterey Audubon donation to our PO Box Below. You can also donate to MAS online at our website, montereyaudubon.org.

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