It’s now or never for Golden Eagle Conservation in San Diego County

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Now or never for **Golden Eagle** conservation in San Diego

*Eagle experts in San Diego express concern about what losing these top predators would mean for the environment, and advocate for changes that will preserve their few remaining strongholds.*

by Kelly Quigley, Sketches Editor

What would San Diego be like without Golden Eagles? It’s a question that the county’s 3.3 million residents probably don’t ponder enough—if ever.

After all, with declining local populations of the iconic raptor, few San Diego residents have seen a Golden Eagle firsthand. Even those who have been lucky enough to marvel at its massive wingspan and distinctive shape as it soars above may not be aware of this bird’s vital role in our regional ecosystem.

Yet, as residential development forges eastward and habitat risks continue unabated, it’s becoming more and more possible that life without Golden Eagles will soon become reality for all of San Diego, says zoologist Pete Bloom, Ph.D., who has been studying birds of prey in Southern California for 50 years.

“Southern California is really the only Golden Eagle population that has been recognized as declining,” says Bloom, noting that a growing number of Golden Eagle territories are now considered abandoned. “When we lose territories across the landscape, birds have to disperse greater and greater distances to find a potential mate, and the likelihood of survival goes way down.”

Bloom is collaborating with local, state, and federal agencies on a multiyear survey and tracking program to address questions about Golden Eagle habitat, movement, nest occupancy, genetics, and human impacts. Results from the study will provide information on the location and status of important nesting and foraging areas—and will produce the most up-to-date count of Golden Eagles in Southern California. Many people are eagerly awaiting those numbers, including California bird expert and native San Diegan Philip Unitt, curator at the San Diego Natural History Museum.

**A path of decline**

In 2004, when Unitt meticulously assembled the 645-page *San Diego County Bird Atlas*, his team counted 53 pairs of Golden Eagles across the region, starkly down from an estimated 108 pairs recorded about a century earlier. Numbers remained steady at around 100 pairs until San Diego’s rapid population growth following World War II. Then in the 1970s, with new highways being built and avocado and citrus orchards popping up along Interstate 15, “the decline became precipitous,” his book says.

Unitt believes that since 2004, the Golden Eagle population has plummeted again, by as much as half. “Golden Eagles are a top predator, and if our ecosystem can no longer support top predators, that is a sign of serious environmental degradation,” says Unitt.

Bloom concurs: “When major predators such as eagles and mountain lions no longer exist, it can change the whole immediate ecosystem in ways that aren’t always predictable.”

For example, he says, Golden Eagles prey on animals such as squirrels, jackrabbits, and skunks—with skunks known to be carriers of rabies. When top predators disappear, prey species tend to boom, sparking changes in vegetation and influencing many other aspects of the environment. Hypothetically, that could mean that rabies-carrying skunks further infiltrate residential areas and become problematic around domesticated animals, Bloom says.

**Not urban adapters**

Golden Eagle conservation is difficult because so many factors are at play. As Bloom explains, the top “environmental insults” include urban sprawl and decreasing biodiversity, which results in an environment that’s unable support prey. Increasing wildfires are further diminishing biodiversity—and wiping out trees that can serve as nesting sites. These combine with ongoing issues such as lead poisoning from ingested bullets and electrocution from perching on tall power poles. (Power companies have sought to remedy this, he notes.)

Bloom reported that recently, a 27-year-old female Golden Eagle was struck and killed by a truck near Modjeska Canyon in Eastern Orange County—likely as the eagle was diving for a rattlesnake on the road. Bloom came to realize it was same eagle whose ankle he banded near Camp Pendleton when it was just a nestling. He considers every death a major loss, but this one was particularly difficult.

Of all of the threats, sprawl seems to be the most commonly cited among conservation experts. Golden Eagles nest on cliffs and in high trees, but only in areas with vast open land and a healthy population of small mammals. Territory size can range from around 20 square miles to more than 60 square miles, Unitt says.

When a new housing development moves into that territory, the birds lose their home. They abandon the territory and will need to find a new one, which isn’t easy; nearby territories may already be claimed by a pair of Golden Eagles. Unlike the Red-shouldered Hawk and Cooper’s Hawk—birds of prey that have learned how to live in an urban setting—Golden Eagles don’t adapt to development. “At least not yet,” Unitt says.

New development around Jamul and Ramona could threaten existing territories, he says, as could the redevelopment of expansive cattle
ranch areas farther east. “This could be an opportunity to get those ranchers on the side of conservation,” Unitt says. “They may see the greater value in maintaining their properties rather than just selling to a housing developer.”

Unknowing hikers, climbers pose risks

Other forms of habitat degradation are less apparent. San Diego’s environmentally minded hikers and rock climbers often don’t realize that their favorite treks put Golden Eagles at risk—notably near the popular Iron Mountain Trail in Poway and El Capitan Preserve in Lakeside, Bloom says. In addition, some hiking groups are intent on creating new trails on what is now open park land. “Loving trails is understandable, but these are areas where Golden Eagles nest or forage,” Bloom says. “They will limit foraging anywhere there are people. And in the spring, it can mean a nest failure when you have people buzzing by so closely.”

Greater awareness of all of these issues is critical—for local governments, outdoor enthusiasts, developers, and others. Bloom hopes people will start paying attention in time to help Golden Eagles avoid the same fate as beautiful local species such as the Western Burrowing Owl, which has all but disappeared.

“I believe we can save the Golden Eagles here, but it will be a reduced population, and we are going to have to work tirelessly to protect them,” Bloom says.

Golden Eagle (Aquila chrysaetos)

As a top predator, the Golden Eagle has the largest territory and the lowest population of any San Diego County bird.

Habitat: Golden Eagles favor partially or completely open country, especially around mountains, hills, and cliffs. Found mostly in the western half of North America, and also in Asia, northern Africa, and Europe.

Nesting: Nest site is generally on cliff ledge or in a large tree.

Eggs: The average clutch is 1–3 eggs. Due to high mortality rates among chicks and fledglings, it takes a pair 10 years to produce enough young to replace themselves.

Diet: In our region, typically preys on small animals ranging in size from voles to jackrabbits, or even deer fawns on occasion. Will also feed on carrion.

Coloring: Golden Eagles are dark brown with a golden or light brown nape and dark eyes and beak. Their legs are feathered to toes.

Sources: National Audubon Society, Cornell Lab of Ornithology, San Diego County Bird Atlas

Apex predators are vital for maintaining the balance in any ecosystem, and the continued loss of prime habitat for Golden Eagles may have long-enduring effects on the biodiversity of our back country.
Registration for the 2020 San Diego Bird Festival is just weeks away, to be held February 26 through March 1 at the waterfront Marina Village Conference Center in Mission Bay.

Our event lineup this year promises a splendid celebration of the birds and wild places of San Diego County, along with plentiful opportunities to socialize and build new skills. We expect more than 500 people will converge from all over the country to participate in the festival’s many events. Here’s why you should make plans to be there, too.

1. **Attend keynotes with star power.**
   Kicking off the festival on the evening of Wednesday, Feb. 26 will be none other than Kevin McGowan of Cornell Lab of Ornithology. On Thursday evening, we will hear from Pete Dunne, prolific author and a founder of the World Series of Birding. On Friday evening, marine conservationist Julia Parrish will tell us all about her COASST project, which uses data gathered from “citizen scientists” to understand the trends and the causes of declines in shorebird populations. On Saturday evening, professor and author Nathan Pieplow will dazzle us with his understanding of bird song—shedding light on the vocalizations we hear every day but don’t always understand.

2. **Embark on eye-opening field trips.**
   We have a bundle of field trips each day of the festival, including the always anticipated San Diego 100 Big Day and Birding the Border, along with some new ones such as California Roundup, where we’ll look for all the birds with “California” in their name…well, other than the California Condor. Also new on the agenda are Grebes and Wine and an excursion to the Cabrillo National Monument. We’ll be birding on bikes, on foot, on kayaks, and on an 85-foot boat!

3. **Build valuable new skills at workshops.**
   Choose from a variety of informational lectures and skill-building workshops every day, some by local experts and some by our sponsors. Among this year’s compelling topics: learn how to digiscope with your smartphone or brush up on your waterfowl identification skills.

4. **Make new connections, and cherish time with old friends.**
   Belly up to the bar at the Uncommon SaLoon (sponsored by Vortex Optics) to enjoy delicious drinks for just $1 each. We’ll also have refreshments on Wednesday night and breakfast every morning (sponsored by Kowa). Last year’s nightly dinners were such a hit that we’ll be offering them again, with tickets for $20.

5. **Have fun with the fam.**
   What would the San Diego Bird Festival be without Family Day? The schedule is jam-packed with your favorites: SoCal Parrot, Free Flight, Zovargo, and the Raptor Institute! We’ll also have booths with exhibitors from local nonprofits and a new event: a bird call contest. We’ll top it off with Family Day Keynote Speaker Jason Ward, from the YouTube series “Birds of North America.” **All of our Family Day events are free,** supported by our friends at SDG&E.

We are grateful to the following presenting sponsors who have made this year’s event possible: Creative Communities San Diego, Port of San Diego, Metropolitan Water District, Bird Watcher’s Digest, Redstart Birding, Swarovski Optik, Zeiss, and the U.S. Fish and Wildlife Service’s SoCal Urban Wildlife Refuge program.

Bird Festival registration will begin on November 11. You can see the complete schedule at www.sandiegoaudubon.org. **Sign up to be a volunteer and work just one shift to receive a discounted registration fee.**

The main draw for our festivals is the wide range of birding trips that explore the full range of habitats throughout our region, from pelagic boat trips to desert canyons. Photo by Jane Mygatt.
While the main attractions of Anstine-Audubon Nature Preserve are the charismatic avian species such as the California Quail and various raptors, many of Anstine’s remarkable residents are better viewed through a magnifying glass than with binoculars. The invertebrate life at Anstine is diverse and abundant, and it provides an ecological base and food source upon which other animals thrive. Insects make up approximately 80% of all species worldwide, and most scientists agree that we have only just begun to catalog the immense variety of insect life, with untold millions of species still waiting to be discovered and named. With changing climates and an ever-growing number of people wishing to call California home, it only makes sense to take a closer look at what we have to lose.

Insects of various kinds form a large portion of the diet of many bird species found at the preserve, including the California Thrasher (Toxostoma redivivum) and the California Scrub Jay (Aphelocoma californica). During the hot summer months this year, while Anstine was being prepared for opening day, the birds were busy hunting the plentiful insects that emerged after our unusually heavy rains. During summer, few native plants produce fruit or berries, and many are completely dormant as they wait for the first rains of fall, which are needed to flower and fruit. Many of the local bird species will gorge on insects, taking advantage of our local seasonal produce.

Birds aren't the only ones enjoying the summer offerings. Many predatory insects make Anstine their home and even order off the same menu. Many visitors are familiar with dragonflies and their smaller damselfly relatives, aerial hunters which, thankfully, patrol our waterways, reducing mosquito populations. Less well known are the robber flies, deadly hunters that often catch their prey in mid-flight. Robber flies may be mistaken for wasps or other insects because they often use mimicry to help them catch prey. Robber flies of the genus Mallophora resemble bumblebees with bodies covered in fuzzy yellow and black hair, and are known as bee killers. True to their name, they use their bee-like appearance to more easily approach bees and wasps, which they dispatch in midair, unfazed by deadly stings.

Another, and better known, insect predator can be found in abundance at the preserve, the California Praying Mantis (Stagmomantis californica). Juvenile mantids were out in force along the more heavily shaded trails near the central pond. Here the lush evergreen foliage of Toyon (Heteromeles arbutifolia) dominates the trails and reaches heights of more than six feet, providing a great place to hide and maximize their camouflage. Being primarily ambush hunters, mantids will characteristically stay still in their “praying” pose while hunting, making patience and a keen eye requirements in sighting one.

With so much to do and see, and little time in our schedules, it can be tempting to move down the trails at a jogger’s pace, either eager to take it all in, or eager to move on. Insects themselves have fast-paced and short lives, but if we are still for a moment, we may catch a glimpse of the world from a different perspective. Anstine is open to the public from 9 a.m. to noon on Saturdays and 8 to 11 a.m. on third Wednesdays.

Climate Strike Marches to Kendall-Frost Reserve; San Diego Audubon Participates

Several hundred students in 25 locations throughout the county participated in the international Climate Strike held Friday, September 20, including a very energized group of 350 that marched to the Kendall-Frost Marsh Reserve. Most of the marchers were striking students from Mission Bay High School, and numerous San Diego Audubon supporters were there as well. They were a small part of a global network that drew 7.6 million people eager to force a clear response from world leaders. More than 15 San Diego-region schools, from elementary to university level, were involved. San Diego Audubon is pressing our city council to address the long-term need to address future sea level rise in the Kendall-Frost Reserve, which will eventually will be expanded as part of the ReWild wetlands restoration plan. Wetlands restoration is a vital way to both mitigate and adapt to climate change.
As summer faded away and the fall season snuck in, the Silverwood Wildlife Sanctuary busily prepared for the returning congregations of visitors. With more than 21 inches of rain earlier in the year, our shrubs and dense thickets of dried annuals encroached upon many of Silverwood’s trails. In advance of opening day in October, many hours have gone into weed whacking, looping, and pruning the 5.7 miles of trail, ensuring they are free of obstruction for our guests. Although heavy spring rains made for a busy year of trail maintenance, it also freed California from drought after more than seven years. In March, the state ended its longest-ever duration of drought—a period of 376 consecutive weeks that began on December 20, 2011.

The colorful seasonal wild flowers and robust stream-water flow through the month of July gave me the feeling that spring might last forever. Even up north in the Sequoia National Forest—where I have spent several weeks every July for the past decade—I saw annual gallias, phloxes, and monkey flowers carpeting the forest floor at our Stony Creek Campground. I can’t recall this type of flowery display ever happening so deep into the summer.

Here at Silverwood, the prolonged spring encouraged many species of birds to produce more than one clutch. Ash and Ashley, our seasonal Ash-throated Flycatchers, did just that for the first time on record. After their arrival in mid-April, they reared their first clutch of three fledglings. Then, at the end of June, Ashley began a second clutch in a nest box in the observation area. By the time I returned from my family trip in the first week of August, Ash had already migrated south, leaving Ashley to rear the second clutch of two fledglings on her own. Only one fledgling from the first clutch remained. As of the third week of August, the remaining Ash-throated fledglings were feeding on mealworm handouts on their own. Finally, on August 23, Ashley headed south with the one older fledgling, and the next day one from the younger brood disappeared. It wasn’t until the August 28 that the last of the young birds headed south.

Silverwood’s resident species of Scrub Jays, Spotted Towhees, and California Towhees also were quite successful producing young. The resident Acorn Woodpeckers were fruitful this year, as well, producing three young in a cavity along the driveway.

As summer wound down, I saw many Mule Deer—up to four of them—spend their evening hours feeding on early fallen acorns around the observation area. Indeed, fall is now upon us. We look forward to seeing you in October to experience this eventful season at Silverwood Wildlife Sanctuary firsthand.

We Appreciate Our Hosts (And Would Really Like More!)

If you’ve visited Silverwood on a Sunday, you’ve probably been welcomed by one of our friendly hosts, who greet and provide information to visitors as they arrive. Silverwood is grateful for these wonderful volunteers, who also help guide student and adult groups as they learn about chaparral along Silverwood trails, birding at the observation area, and nature displays in the Frank Gander Nature Education Center.

However, our trail docents will occasionally have conflicts on visitation days. Silverwood is looking for one or two additional docents to step in when such scheduling conflicts arise.

Hosting is a fun and much-appreciated role. Your presence frees up the Resident Manager to give guided trail walks. If you have some knowledge of chaparral plants and ecosystems, we welcome you to give it a try sometime; there’s no obligation, and no better way to spend a few hours in the nicest of environments. Even hosting just two or three times a year would be a tremendous help. If you’re interested, please call Host Coordinator Ann Sixtus (858-676-1842) or contact me, Resident Manager Phil Lambert (619-443-2998).

Whether you’re hosting or not, please come out to Silverwood during open visitation hours and enjoy one of the best half-day vacations you can find anywhere. A beautiful autumn awaits you.
Together, We Can Bring Them Back

You are likely aware of the recent findings published in the journal *Science* of the **loss of three billion birds from North America over the last half-century**, and the just-released findings from National Audubon that **two-thirds of our bird species are at risk of extinction** because of climate change. Here are seven ways to fight back. San Diego Audubon supports all of the following actions, and the National Audubon website, [www.audubon.org](http://www.audubon.org) as well as [3BillionBirds.org](http://3BillionBirds.org) have excellent resources for making your corner of the world safer and friendlier for birds.

1. Make your windows bird-strike safe
2. Keep cats indoors
3. Replace lawns and manicured shrubs with native plants
4. Avoid, and speak out against, use of pesticides
5. Drink and promote coffee from shade-grown coffee farms
6. Help keep plastic out of our environment
7. Watch birds, and share your data (*join the Christmas Bird Count!*)

**2019 CHRISTMAS BIRD COUNT**

The CBC is an excellent way to combine your interest in birding with a long-term international project that provides invaluable real-world data that helps protect birds. Volunteers of all levels of experience are encouraged to assist in this annual citizen science project. To sign up, or for more details, contact the compilers for each circle by email provided.

- **Saturday, December 14, San Diego Circle**
  - Justyn Stahl – justyn.stahl@gmail.com

- **Sunday, December 15, Anza-Borrego Circle**
  - Jim Dice – dicej@uci.edu

- **Monday, December 16, L. Henshaw Circle**
  - Gretchen Cummings – Gretchen.bc@sbcglobal.net

- **Saturday, December 21, Oceanside Circle**
  - Tim Burr – tburr@san.rr.com

- **Saturday, December 28, Escondido Circle**
  - Ken Weaver – gnatcatcher@sbcglobal.net

- **Saturday, January 4, 2020, Rancho Santa Fe Circle**
  - Robert Patton – rpatton@san.rr.com

**NOVEMBER:**

- **Lake Cuyamaca**
  - Saturday, November 2, 2019, 8:00–11:00 a.m.
  - Leaders: Terry Hurst 619-318-7717, John Bruin
  - Capped at 20 participants. [Directions on the website.](http://www.audubon.org)

- **Beginning Birders along the San Diego River—Robb Field**
  - Friday, November 8, 2019, 8:00–11:00 a.m.
  - Leaders: Terry Hurst 619-318-7717, John Bruin
  - Capped at 15 participants. [Directions on the website.](http://www.audubon.org)

- **South San Diego Bay Wildlife Refuge and the South Bay Salt Works**
  - Saturday, November 9, 2019, 8:00 a.m.–12:00 p.m.
  - Leaders: John Bruin 505-401-3022, Jim Pea, Terry Hurst, and others
  - Capped at 30 participants. [Directions on the website.](http://www.audubon.org)

- **Poway Creek**
  - Sunday, November 17, 2019, 8:00–11:00 a.m.
  - Leaders: Lisa Ruby 858-705-1873, Terry Hurst
  - Capped at 15 participants. [Directions on the website.](http://www.audubon.org)

- **Tecolote Canyon Natural Park**
  - Saturday, November 23, 2019, 8:00–11:00 a.m.
  - Leaders: Anitra Kaye, 619-517-1168, John Walters, and Jack Friery
  - Capped at 25 participants. [Directions on the website.](http://www.audubon.org)

- **Whelan Lake Bird Sanctuary**
  - Saturday, November 30, 2019, 8:00–11:00 a.m.
  - Leaders: Denise Riddle at driddle1855@att.net for any further information. Day of event contact number is 760-815-6321.
  - Capped at 25 participants. [Directions on the website.](http://www.audubon.org)

**DECEMBER:** Check website in November for details

- **La Jolla Sea Watch and Rocky Shores**
  - Saturday, December 7, 2019, 8:00–11:00 a.m.

- **Tecolote Canyon Natural Park**
  - Saturday, December 28, 2019, 8:00–11:00 a.m.

- **Christmas Bird Count Circles** (*see schedule to left*)
**2020 Nature Discovery Workshop Series**

The fifth year of our popular Nature Discovery Workshop Series is about to take flight, and we have some exciting courses in the wings. Whether you are interested in birds, community science, or the history of our local wildlife spaces, we have something for everyone. Our workshops strive to inspire wildlife enthusiasts by offering nature-based courses that explore locations throughout the county. Stay tuned to our website and eNewsletter for new information. Here’s a quick preview of upcoming workshop topics:

- **Drawing Birds as Living Animals**
- **Bird ID for Beginners: How to Become a Bird Watcher**
- **Connecting with Nature through Technology**—a collaborative workshop with the San Diego Natural History Museum
- **History of Mission Bay**

Questions? Please email our Education Manager Hayley Heiner at heiner@sandiegoaudubon.org, call the office at 858-273-7800, or check our website for further details.

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**Drawing Birds as Living Animals**

*An in-depth, two-session presentation of the artistic anatomy of birds. Learn to “see” the underlying body form of birds, to understand how all the parts fit and move together, and to discover ways to make your drawings more lifelike. A 16-page workbook will be provided for each participant, and all seven lessons will be illustrated in a Powerpoint presentation. Bring a sketch pad (preferably 8.5 x 11) and sharpened pencils.*

Cost:
- Students and limited income, $60
- San Diego Audubon Friends, $85
- the general public, $105