President’s Corner

Rudy Darling, SFAS President

As I write this, it is the beginning of February, and we are having an unseasonably warm spell. Daffodils and tulips are emerging from the soil and some are even flowering. Some of the resident and wintering birds are starting to sing insistently. The Hutton’s Vireos drone on – zooeet, zooeet, zooeet – claiming their piece of turf, unaware that I have a piece of paper that says it’s already taken. Brown creepers are extolling the virtues of “trees, trees, beautiful trees.” Bewick’s Wrens are trilling their excitement about the coming of spring. The hauntingly beautiful Ruby-crowned Kinglet songs are heard at ever greater frequency as they prepare for their journey northward. Woodpeckers have joined their spring ritual drumming circles. Great Horned Owls are asking, “Hoo will be my partner?” And my favorite, our creekside “energizer wren,” the Pacific Wren, is expressing his exuberance for life with his melody that “keeps going and going and ...”

Sierra Foothills Audubon Society has its own “energizer wren” – treasurer, conservation chair, finance and nomination committee member, The Phoebe contributor, proof-reader, and wrangler, membership database creator, former president and former program chair, and general troubleshooter, Don Rivenes. And these are just the things he does for SFAS! He is also Executive Director of Forest Issues Group (FIG), a member of the Nevada County Biomass Task Force, a member of the

Continued on page 2
Forestry Committee of the Mother Lode chapter of the Sierra Club, president of Yuba Watershed Foundation, president of Yuba River Wilderness campaign, Advisory Committee chair of Sierra Forest Legacy and an advisor to the Nevada County General Plan Defense Fund. As a member of the Nevada County Climate Change Coordinating Committee and Chair of the Nevada City 100% renewables committee, he is coordinating efforts to have Nevada City reach a goal of 100% renewable electricity by 2030, and 100% renewable energy by 2050. In the past he has been on the board of the Oakland Museum and the Audubon California State Board and was Executive Director of Computer Dynamics Inc, a publicly held company. When I jokingly asked what he does in his “spare time” there was a long pause. Surprisingly, he said that he and Barbara help take care of their grandkids three days a week. That same morning he had played a round of golf, and he professes to get eight hours of sleep to boot. Energizer wren indeed!

How did this boy from the Chicago area end up on the SFAS board? His job shuffled him around the country until he finally ended up in Berkeley. After a while, he and some friends began a computer software startup. He worked for many years as a computer consultant to large banks (aha! Good background for a treasurer and finance committee member.). Don became hooked on birds in the late 70’s when he went on a Transect Across CA field trip with Rich Stallcup and Bob Stewart of Point Reyes Bird Observatory. He bought a pair of binoculars and went on a birding trip to Alaska and never looked back (I guess the birds were all in front of him). He joined National Audubon in 1978 and was active in Golden Gate Audubon where Barbara was the office manager. When they retired to Nevada County in 1996, he joined SFAS and by 1998 was on its board.

So what does the conservation committee do? As a volunteer organization, what
Nevada County Conservation Report

Don Rivenes, Conservation Chair Nevada County

There is a proposed project - Sunset Industrial Area/Placer Ranch Project - in western Placer County, located on the Pacific Flyway and host to a range of suitable and critical habitats for waterfowl, raptors and shorebirds who reside, stopover and winter.

It is in an area that is set aside for development under the proposed Placer County Conservation Plan (PCCP). The proposed PCCP is a Habitat Conservation Plan (HCP) under the Federal Endangered Species Act and a Natural Community Conservation Plan (NCCP) under the California Natural Community Conservation Planning Act. Within the proposed PCCP plan area, 50,000 to 60,000 acres within the available potential acquisition area would become part of a reserve system. This conservation reserve system would preserve many acres of vernal pool habitat (approximately 50 percent of the County’s remaining stock of these fragile, seasonal ecosystems).

But within the area slated for development, it is still important to consider impacts from development projects. Although the PCCP has not yet been adopted, the county is generally requiring interim projects to mitigate consistent with the PCCP. For this project, it must conform to the enhanced stream system avoidance requirements of the PCCP’s County Aquatic Resources Plan (CARP). Impact fees will be assessed on all habitat elsewhere in the project, whether avoided are not. Mitigation fees for the SIA/PR will be used to help jumpstart the establishment of the interconnected system of habitat preserves that are planned in the PCCP Reserve Acquisition Area (RAA).

The proposed SIA/PR site is primarily farmland with 8000 acres of soil classified as “important” by the California Farmland Mapping Project. Conversion of the farmland to urban uses will increase CO2 generation from the project site to an order of magnitude 70 times higher than existing levels. Farmland preservation, more than any other management activity has the single greatest impact in stabilizing and reducing greenhouse gas emissions.

To offset these GHG emissions, the county should consider a requirement that all structures of the project include solar photoelectric panels. Placer County has just instituted a Community Choice Aggregation (CCA) called Pioneer Community Energy. Pioneer was created to provide local control over the electric supply with one of its primary goals to provide lower and more stable electricity rates to the residents and businesses within its member jurisdictions. California’s Renewable Portfolio Standard procurement target is 33 percent by 2020 to 50 percent by 2030. It is reasonable to assume that interim annual renewable energy procurement targets will be imposed on CCAs and other retail electricity sellers to facilitate progress towards the 50 percent procurement mandate. Solar panels on project buildings will assist in reaching these goals.

Grasslands and pastures within the SIA/PR are crucial for raptors and terrestrial land birds in providing the large expanses of habitat rich with insects needed to support their wintering populations in which are represented in abnormally large numbers in Western Placer as compared to the Central Valley as a whole.

The SIA/PR is home to the threatened, listed or protected burrowing owl, golden eagle, Swanson hawk, white tailed kite, short-eared owl and Ferruginous hawk and provides habitat for the tricolored blackbird which the CA Fish and Wildlife Commission in 2015, advanced for listing as threatened or endangered under the...
Field Journal

For field trip updates, changes or cancellations check http://sierrafoothillsaudubon.org/
Our field trips are free. Carpooling drivers appreciate participants offering to share fuel costs

Bird Walk for Beginners - Traylor Ranch, Penryn
Saturday March 3, 2018
8:00 - 10:00AM
Leader: Bill Covington 916-645-0727
Meet at 8:00 AM in the parking lot off Humphrey Rd. at the south- east corner of Traylor Ranch Nature Reserve and Bird Sanctuary in Penryn. Note: the address for the Reserve is 5050 English Colony Road in Penryn. This trip is intended for beginners, but experienced birders are welcome and add to the experience for all. Traylor Ranch affords an opportunity to see the resident species of the lower foothills and valley floor, usually twenty or more different species. We’ll spend about two hours and walk a little more than a mile. Come on out, bring your binoculars and help us find some birds. The more eyes and ears, the more birds we’ll see. Here’s the Placer Co. web site for Traylor Ranch
http://www.placer.ca.gov/departments/facility/parks/parks-content/parks/traylor-ranch-nature-reserve

Bridgeport at South Yuba State Park Saturday
Saturday, March 10, 2018
8:00-10:00 AM
Leaders: Bob Slyker 530-205-9011
gsly@aol.com and
Carol & Bruce Malnor 530-263-9392
cmalnor@comcast.net
We’ll meet at Bridgeport’s north parking lot (just past the Yuba River highway bridge). This 2-hour walk takes us by the Visitor’s Center and along Kentucky Creek to the Yuba River. We may see common foothill species including Downy Woodpecker, Lark Sparrow, Northern Rough-winged Swallow, Bewick’s Wren, American Dipper, Black Phoebe, or Ruby-crowned Kinglet. If weather is questionable contact a leader.

Little Brown Birds
Saturday, March 17, 2018
8:00 AM - 12:00 AM
Leader: Rudy Darling 530-272-6504
rdarling@sbbmail.com
This field trip is held in conjunction with the “Little Brown Birds” class through Sierra College Continuing Education, but is sponsored by SFAS and is open to the public as well. Meet at the park-and-ride by the traffic light on Hwy 20 at Pleasant Valley Rd./Penn Valley Drive. We will carpool to one or more locations to look at any bird that crosses our path. Emphasis will be on the clues experienced birders use to identify little brown birds. Easy walking on mostly level ground. Please contact Rudy if weather is questionable.

Bird Walk For Beginners In Grass Valley
Sunday, March 18, 2018
8:00 -10:00 AM
Leader: Dan Stewart 530-265-4677
dcstew@outlook.com
This walk is designed for beginners, but more skilled birders are helpful and welcome. We’ll talk about binoculars, how and where to find birds, what to look for when you find one. We meet at 8:00 AM in the parking lot of the Brier Patch Market on Sierra College Drive in Grass Valley. We walk for a little less than two miles and it usually takes about two hours. Fifteen to twenty different species are almost guaranteed, especially with enough sharp eyes and ears. It’s a nice walk up over the hill at Sierra College and back to the Brier Patch. Come on out and help us find and identify some birds.

Bird Walk For Beginners - Traylor Ranch, Penryn
Saturday, April 7, 2018
8:00-10:00AM
Leader: Bill Covington 916-645-0727
Meet at 8:00 AM in the parking lot off Humphrey Rd. at the south- east corner of Traylor Ranch Nature Reserve and Bird Sanctuary in Penryn. Note: the address for the Reserve is 5050 English Colony Road in Penryn. See March 3, 2018 listing for trip description.

Bridgeport at South Yuba State Park Saturday
Saturday, April 14, 2018
8:00-10:00 AM
Leaders: Bob Slyker 530-205-9011
gsly@aol.com and
Carol & Bruce Malnor 530-263-9392
cmalnor@comcast.net
We’ll meet at Bridgeport’s north parking lot (just past the Yuba River highway bridge). This 2-hour walk takes us by the Visitor’s Center and along Kentucky Creek to the Yuba River. We may see common foothill species including Downy Woodpecker, Lark Sparrow, Northern Rough-winged Swallow, Bewick’s Wren, American Dipper, Black Phoebe, or Ruby-crowned Kinglet. If weather is questionable contact a leader.

Spenceville Wildlife Area for Spring Migrants
Saturday, April 14, 2018
7:30 AM - 12 Noon
Leader: Ted Beedy 530-274-7232
tbeedy@comcast.net
This field trip will coincide with Ted Beedy’s Sierra College Community Education Class “Spring Migrants: Where do they go?” We will travel with several stops along Waldo Road to the Fairy Falls trailhead to hike around expecting to find Lewis’s Woodpecker, Western Kingbird, Bullock’s Oriole, Lazuli Bunting, and Warblers--Yellow, Wilson’s, and Orange-crowned. In the past we’ve had Blue and Black-headed Grosbeaks in this area. Tree and Cliff Swallows, by the hundreds, are regular visitors. These and surely some surprises, including raptors, should make for an exciting morning. Bring drinks and snacks. We expect to quit around noon. Meet at the Park and Ride at Pleasant Valley Road on Highway 20 at 7:30 am. If weather is questionable contact Ted.

Bird Walk For Beginners In Grass Valley
Sunday, April 15, 2018
8:00 -10:00 AM
Leader: Dan Stewart 530-265-4677
dcstew@outlook.com
Meet in the Brier Patch parking lot at 8:00AM. See March 18, 2018 listing for trip description.

City of Lincoln Wastewater Treatment Facility
Tuesday, April 17, 2018
9:30 to 11:30AM
Leader: Heath Wakelee 916-870-5253
hwakelee@gmail.com
Meet at the City of Lincoln Wastewater Treatment Facility, 1245 Fiddyment Road, Lincoln, CA 95648 Phone: (916) 434-2450.
We will meet in their parking lot just inside the gate. Each car has to sign in and out at the facility. This will be primarily a car birding trip so those with access and functional needs are welcome to attend. We should see a variety birds such as: Northern Shoveler, Ruddy Duck, Mallard, American Coot, Pied-billed Grebe, Great-blue Heron, Great Egret, Black-necked Stilt and American Avocet. If weather is questionable contact Heath.

Cascade Canal Trail
Friday, April 20, 2018
8:00 - 11:00 AM
Leader: Rudy Darling 530-272-6504
rdarling@sbbmail.com
Meet at the auxiliary parking area, which is a tenth of a mile or two downhill from Banner-Lava Cap Rd. on Gracie Road, Nevada City (NOT the disputed lot at the corner of Gracie and Banner-Lava Cap Roads.). The spring migration should be well underway and many of the local breeders should have returned by now. We will learn to identify encountered species by song and sight. Possible rarities include Pileated Woodpecker and Northern Pygmy-Owl. This is a moderate hike on mostly level ground. If we make it as far as the Land...
Beginning Birding on Placer Land Trust’s Taylor Ranch Preserve (not Traylor Ranch in Penryn)
8:30 AM Saturday, April 21, 2018
Leaders: Sarah Roeske 916-281-4914 and Kate Brennan
This is a co-Placer Land Trust – Sierra Foothills Audubon Society event. All levels of experience are welcome. This private property is a short distance upstream from Hidden Falls Regional park.

We will meet at 8:30 AM at the property. Please sign up in advance through the Placer Land Trust web site- http://www placerlandtrust.org/calendar-2/ (Scroll down through “Coming events”), or contact Janet Voris (janet.voris@placerlandtrust.org or 530-887-9222). She will provide directions on how to find the preserve. We will saunter along the banks of Racoon Creek and wend slowly through blue oak grassland, looking and listening for year-round residents and migrating songbirds. We’ll practice basic birding identification skills in this beautiful riparian – open forest habitat. Please bring binoculars if you have them. No more than a mile of walking; some uneven terrain. There are no facilities on the property. Enrollment limited to 20 people. Heavy rain will cancel event.

Birding Hot Spots: Western Nevada County
Saturday, April 28, 2018
7:00 – 2:00 (or thereabouts)
Leaders: Rudy Darling 530-272-6504
rdarling@sbbmail.com
Ted Beedy 530-274-7232
tbeedy@comcast.net

Part one of a two-part field trip series coinciding with the leaders’ Sierra College Community Education class, “Birding Hot Spots: Western Nevada County,” but open to all. Meet in the parking lot of the Rood Government Center, 950 Maidu Avenue, Nevada City. This fast-paced field trip will transect western Nevada County and is designed to show area birders where Big Day veterans go to find a maximum number of species. The route runs from Bridgeport State Park to Lake of the Pines wastewater plant. Bring a lunch. Required: contact Rudy or Ted to reserve a spot.

4th Annual Hummingbird Extravaganza
Sunday, April 29, 2018
5:00-7:00 PM
Leader: Kate Brennan 530-268-1682
Do you love hummingbirds? Join us for an evening with an astonishing number of hummers at a well established migratory rest and refueling stop. We will be driving out Perimeter Rd to a private residence to view hundreds of Anna’s, Black-chinned, Rufous, and the occasional Calliope Hummingbirds. The best viewing will be just before sunset. We will be leaving at 5:00 PM from the Park and Ride lot behind the Cornerstone Church at the corner of Hwy 49 and Wolf Rd. Call Kate to make reservations as parking is limited. Bring binoculars, lawn chair, finger food to share or your own picnic, wine, etc.; some finger food and non-alcoholic beverages will be available. Call Kate if weather looks questionable.

Bridgeport at South Yuba State Park
Friday, May 4, 2018
8:00-10:00 AM
Leaders: Bob Slyker 530-205-9011
bgsly@aol.com

We’ll meet at Bridgeport’s north parking lot (just past the Yuba River highway bridge). This approximately two hour walk takes us along Kentucky Creek and the Yuba River. We may see common foothill species including Hairy Woodpecker, Oak Titmouse, Orange-crowned Warbler, Black Phoebe, Spotted Towhee, Yellow-breasted Chat, American Dipper or Black-headed Grosbeak. If weather is questionable contact a Bob.

Bird Walk for Beginners - Traylor Ranch, Penryn
Saturday, May 5, 2018
8:00-10:00 AM
Leader: Bill Covington 916-645-0727
Meet at 8:00 AM in the parking lot off Humphrey Rd. at the south- east corner of Traylor Ranch Nature Reserve and Bird Sanctuary in Penryn. Note: the address for the Reserve is 5050 English Colony Road in Penryn. See March 3, 2018 listing for trip description.

Black Swan Preserve
Sunday, May 6, 2018
6:30 – 11:30 AM
Leaders: Steve & Diane Rose nevcountybb@aol.com
This recently acquired Bear Yuba Land Trust property already has a bird list north of 100 species. Its large pond system with a towering hydraulic cliff is the center piece of the preserve. We will take a leisurely one mile stroll down a gently sloping jeep track and should see a variety of migrant and resident flycatchers, vireos, swallows, warblers and sparrows. By this date, Yellow-breasted Chat should be on territory, giving its fantastic songs and calls. Plan to be birding until late morning. Bring binoculars, snacks, water, and lunch if you want it. Meet, no later than 6:30 AM, at the Park and Ride lot on Rough and Ready Highway, just north of Highway 20 and Penn Valley Dr. If you plan to attend or if you have questions, please email Steve and Diane at nevcountybb@aol.com

Cascade Canal Trail
Friday, May 11, 2018
7:30 - 10:30 AM
Leader: Rudy Darling 530-272-6504
rdarling@sbbmail.com
Meet @ the auxiliary parking area, which is a tenth of a mile or two downhill from Banner-Lava Cap Rd. on Gracie Road, Nevada City (NOT the disputed lot at the corner of Gracie and Banner-Lava Cap Roads). All of the spring migrants should be back and singing their hearts out by now. We will learn to identify encountered species by song and sight. We should find Black-headed Grosbeak, MacGillivray’s Warbler and other local warblers, Western Tanager, vireos, wrens, and much more. This is a moderate hike on mostly level ground. If we make it as far as the Land Trust’s Woodpecker Preserve, the trail becomes steep but those with mobility issues could elect to return to their vehicles. If weather is questionable contact Rudy.

Bridgeport at South Yuba State Park Saturday
Saturday, May 19, 2018
8:00-10:00 AM.
Leaders: Carol & Bruce Malnor 530-263-9392 cmalnor@comcast.net

We’ll meet at Bridgeport’s north parking lot (just past the Yuba River highway bridge). This 2-hour walk takes you by the Visitor’s Center and along Kentucky Creek to the Yuba River. We may see common foothill species including California Scrub-Jay, Band-tailed Pigeon, California Quail, Black Phoebe, Bullock’s Oriole, Acorn Woodpecker, Yellow-breasted Chat, Yellow Warbler or American Dipper.

Birding Hot Spots: Eastern Nevada County
Saturday, May 19, 2018
7:00 – 4:00 (approximately)
Leaders: Rudy Darling 530-272-6504
rdarling@sbbmail.com
Ted Beedy (530-274-7232
tbeedy@comcast.net

Part two of a two-part field trip series coinciding with the leaders’ Sierra College Community Education class, “Birding Hot Spots: Eastern Nevada County,” but open to all. Meet in the parking lot of the Rood Government Center, 950 Maidu Avenue, Nevada City. This trip is designed to show area birders where Big Day veterans go to find a maximum number of species in eastern Nevada County from Donner Summit to Boca Reservoir. Bring a lunch. Required: contact Rudy or Ted to reserve a spot.

Bird Walk For Beginners In Grass Valley
Sunday, May 20, 2018
8:00 -10:00 AM
Leader: Dan Stewart 530-265-4677
dcstew@outlook.com

Meet in the Briar Patch parking lot at 8:00AM. See March 18, 2018 listing for trip description.
At the post-CBC compilation dinner several people remarked how there seemed to be fewer birds than usual this year. Well, the data are all in, and they were right. Observers reported only 7,899 birds, compared to our average of 14,857, including record lows for 12 species (Pied-billed Grebe, Mourning Dove, Northern Flicker, Yellow-billed Magpie, American Robin, Phainopepla, House Finch, Lesser Goldfinch, White-crowned Sparrow, Golden-crowned Sparrow, Western Meadowlark, and Brewer’s Blackbird). Dark-eyed Juncos and Canada Geese, two of our top 5 all-time species, had the second-lowest numbers in the 24-year count history. Only one species, Sora, tied its previous high (4).

Despite this we found 103 species, just one less than our average. Several species were found that are not present every year – Greater White-fronted Goose, Snow Goose, Tundra Swan, Western Grebe, Ferruginous Hawk, Merlin, Rock Wren, and Varied Thrush. Due to the low number of robins, the most numerous species this year was Canada Goose, with 1,157 birds, followed by Dark-eyed Junco with 659.

49 observers took part in the count. Thanks to area leaders Steve and Diane Rose, Wayne Woodroof, Rudy Darling, Ted Beedy, Jim Groeser, Christy Sherr, Don Rivenes, and Deren Ross for their dedication, and to Jeannie Darling for feeding us after a long day of counting.

Bird flight is often taken for granted; we see birds flying every day. In truth, the ability to fly is the extraordinary essence of birds.

Next, how and why do birds fly. Briefly, birds fly to evade enemies, reach food, reach rest areas, migrate to find food and warm temperatures, nest, and court. And to accomplish flight birds have large, pectoral chest muscles that flap the wings, 10 primary air pushing outer wing feathers (like oars on a boat), approximately 10 secondary flight feathers to push against the air, hollow bones to reduce weight, and a streamlined, aerodynamic shape that, like fish, slides through the fluid of air or water. Note: penguins fly through arctic waters. Each of the wing, air pushing feathers has an airfoil shape, as do the wings of airplanes. This shape lifts the wings and helps keep the bird aloft. And for specific types of flying, wings of different species have widely varying shapes and lengths: from the stubby wings of quickly accelerating raptors to the 5 foot, narrow wings of the largest albatrosses, that soar throughout the day.

The first bird we know of flew about 165 million years ago. It is known as the Archeopteryx—a flying dinosaur the size of a raven (24 inches). So for 165 million years these flying animals have evolved into the nearly 10,000 species that now cover the earth.

So, again and again we marvel at bird flight, made possible by these factors: strong, pectoral muscles, specially shaped feathers, specially designed wings, hollow bones, and like a fish, a perfect aerodynamic body shape.

One factor I overlooked is the tail of birds. The symmetrically shaped feathers of the tail are constantly tuned to allow twists and turns and steady level flight. An example is the way soaring hawks fan, narrow and angle their tails for flight efficiency. And after this tale of the tail we often see songbirds moving around without tail feathers.
Conservation Report...Continued from page 3

California Endangered Species Act.

The SIA/PR project will remove, fill, or hydrologically interrupt wetlands identified in the project area and affect jurisdictional waters. There are tributaries in the SIA/PR that feed Auburn Ravine where the community is working to restore runs of salmon and steelhead. The State has declared all perennial streams critical habitat for Central Valley Steelhead survival.

A Draft Environmental Impact Report is scheduled for this spring, which should address these concerns.

Owls Dying Near Marijuana Farms (Here's Why)

By Jasmin Malik Chua, Live Science Contributor

January 11, 2018

If asked, spotted owls would likely vote against marijuana legalization.

New research reveals that several species, including the northern spotted owl, are succumbing to rat poison from thousands of “unpermitted private marijuana grow sites” in the northwestern California counties of Humboldt, Mendocino and Del Norte.

It’s the contamination of the owls’ primary food source — mice and rats, which, like humans, are attracted to the aromatic crop — that has been the animals’ undoing: Scientists from the University of California, Davis, and the California Academy of Sciences have detected traces of anticoagulant rodenticide in seven of the 10 northern spotted owl carcasses they collected, according to a study published today (Jan. 11) in the journal Avian Conservation and Ecology.

The species, which is listed as threatened under federal and state endangered species acts, isn't the toxicant's sole victim, either. Barred owls, which compete for the same space and resources as their spotted kin, are also being exposed to the same poison from their communal prey. Of the 84 dead barred owls the researchers collected, 34 — about 40 percent — tested positive for the substance, which impedes the body’s ability to clot blood and can result in unchecked internal bleeding.

Making the situation worse is the fact that private, illegal or otherwise unpermitted marijuana grow sites, formerly private timberland, often overlap with designated critical habitats for northern spotted owls and their ilk. “Spotted owls are inclined to feed along forest edges. Because grow sites break apart these forest landscapes, they are likely source points for exposure,” lead study author Mourad Gabriel, of UC Davis, said in a statement.

With the rollout of Proposition 64, the 2016 voter initiative to legalize cannabis in the Golden State, resource managers say they expect to see an uptick in the number and size of these informal cultivation sites. This trend, the researchers said, could “exacerbate the problem.” Even with a legal
weed marketplace, most black-market growers remain entrenched in the shadows. Only a handful of the 4,500 to 15,000 private cultivation sites in Humboldt County alone, for instance, operate with any kind of regulatory oversight, Gabriel said.

“When you have thousands of unpermitted grows and only a handful of biologists that regulate that for multiple counties, we’re deeply concerned that there aren’t sufficient conservation protective measures in place,” Gabriel said in the statement. “If no one is investigating the level at which private marijuana cultivators are placing chemicals out there, the fragmented forest landscapes created by these sites can serve as source points of exposure for owls and other wildlife.”

The results of the study support further investigation into the fragile interrelationships that hold the natural world together. “Access to these owl specimens allows us to explore the health of the entire regional forest system,” said Jack Dumbacher, curator of ornithology and mammalogy at the California Academy of Sciences, where the necropsies were conducted. “We’re using our collections to build a concrete scientific case for increased forest monitoring and species protection before it’s too late to intervene.”

Original article on Live Science.