"There's one over there, just like the picture in the field guide!" I shouted in excitement. Sure enough, right in the middle of a prairie dog colony in the Denver suburbs sat a Burrowing Owl. I can’t remember if that was the first one I ever saw, but like all my other sightings of this lovable creature, it sticks in my mind – like the one perched upon a roadside fence post near Oroville, the ones seen through the bird festival tour bus window by the Salton Sea, the one sitting on a yucca stalk in the Pawnee National Grasslands of Colorado, the representative of the disjunct (look at the distribution map in any field guide) Florida population north of Tampa, or the wintering bird hiding in the rocks near Beale AFB. These remarkable creatures are quite unique. For starters, they walk around on stilts; at least that is how their long legs make them appear. They hunt insects and rodents on the ground during the day. Burrowing Owls often stow extra food to ensure an adequate supply during incubation and brooding. When food is plentiful, the birds' underground larders may be huge. One cache observed in Saskatchewan in 1997 contained more than 200 rodents. Unlike most other owls in which the female is larger than the male, the sexes of the Burrowing Owl are the same size. Burrowing Owls have a higher tolerance for carbon dioxide than other birds—an adaptation found in other burrowing animals, which spend long periods underground, where the gas can accumulate to higher levels than found above ground. They may spread animal dung in front of their burrows to attract dung beetles and other insects which they capture and eat. Yum!

Continued on page 2...
In case you haven't guessed from their name, they nest in burrows unlike other owls. They may appropriate the burrows of other creatures like prairie dogs, ground squirrels, and tortoises or build their own. They also may use human-made structures like culverts, piles of PVC pipe, etc. Conservationists make use of the owls’ adaptability by supplying artificial burrows made of buckets, barrels, pipes, tubing, and other human-made materials. Why? This species needs all the help it can get. Burrowing Owls live in grasslands, deserts, and other open habitats, where they hunt large insects and small vertebrates like rodents, reptiles and amphibians. Their numbers have declined sharply with human alteration of their habitat and the decline of prairie dogs and ground squirrels. In fact, the next time I visited Denver, that prairie dog colony had been replaced by a human colony – apartment buildings. And the same was happening all around Denver. In California, where its numbers have been declining at a rapid pace, primarily due to the conversion of grasslands to other uses, it is listed as a species of special concern.

Enter Placer Land Trust which acquired an area of grassland and vernal pools near the Lincoln airport, the Swainson's Preserve, which historically had hosted Burrowing Owls. With the help of volunteers, including SFAS member Dennis Cavallo, a number of artificial burrows of varying design were constructed. Dennis was kind enough to give a tour of the area to Fiona and Elizabeth Gillogly and myself a few years back and we were lucky enough to see and photograph (I imagine Fiona drew it in her journal) one of the birds on a post. He also showed us a couple of other spots in the general area with more of the birds. It was a highly successful and enjoyable trip!

Enter William Jessup University’s (Rocklin) Institute for Biodiversity and the Environment and former SFAS board member, Ed Pandolfino, their project advisor and field biologist. They constructed two new above-ground burrow complexes and set up a program to monitor nesting success using field cameras. An advantage of this type of burrow is that it can be used on vernal pool grasslands like Swainson’s Preserve, in which burrows could otherwise be submerged some years. These habitats often include state and federally-listed plants and animals, so they are more likely to be preserved than other types of grassland. A student was hired to monitor the cameras and work up the data. They are tracking things like number of visits by adults to the burrow, types of prey brought, nesting success, etc.

Of course, this all takes money. Enter SFAS and our scientific grant program. Who could ask for a more perfect way for us to support research – an endangered bird species in our backyard being aided and studied by local researchers. Providing funding was a no-brainer.

Finally - enter the birds. Burrowing Owls made use of all three above-ground burrows (one was pre-existing), but two of them were unsuccessful at producing young. The third pair successfully hatched five young birds. I imagine we might see a membership program about this exciting project sometime in the future; you know, after exit COVID-19.

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**National Audubon News Report**

Don Rivenes, Conservation Chair Nevada County

This is great news from National Audubon on the positive legal decision on the Migratory Bird Treaty Act.

From Sarah Greenberger - Interim Chief Conservation Officer and Senior Vice President, Conservation Policy National Audubon Society

What a week! I’m excited to tell you that we won our lawsuit opposing the administration’s assault on the Migratory Bird Treaty Act (MBTA). For more than 100 years, the MBTA has been one of our nation’s best tools for keeping birds safe from oil waste pits, oil spills, power line electrocutions, toxic mining ponds, and other hazards. But two years ago, the Trump Administration issued a legal opinion that businesses that negligently kill birds aren’t accountable under the MBTA, overturning decades of bipartisan agreement.
Audubon responded with a multi-pronged defense of the MBTA—which included joining a lawsuit challenging the Trump ruling. Yesterday's decision (August 12) by the United States District Court of the Southern District of New York noted that the White House's interpretation doesn't align with the MBTA’s intent and language and is “contrary to the plain meaning of the MBTA.” Quoting To Kill a Mockingbird, Judge Valerie Caproni wrote, "It is not only a sin to kill a mockingbird, it is also a crime."

This is a great moment for birds, but our work isn’t over. During the past year, we also helped draft the Migratory Bird Protection Act and engage a bipartisan group of co-sponsors in the U.S. House of Representatives to introduce it. This new legislation would reaffirm current law, create more certainty for businesses, incentivize bird-protection innovations—and avoid future misinterpretations of the MBTA. We rallied our network of members and others who love birds to advance and pass similar legislation at the state level in California.

Education Committee Report

By Jim Groeser

Summer will soon be simmering down to a cooler fall and less seed and suet will be pecked by our feathered friends in our yards.

The Cornell Laboratory of Ornithology Summer 2020 edition of Living Bird magazine had a very informational 2 page layout entitled "Feeding Birds In The Summertime". The work concentrated on four common birds, which were: orioles grosbeaks, hummingbirds and bluebirds.

Cut up fruit (example: orange halves hanging on a string) could attract orioles to your yard and surprise you with their gorgeous flash of orange feathers. Orioles ingest fruit in an unusual manner called GAPING. They stab their closed bill into soft fruits, then open the bill to cut a juicy swath from which they drink with their bushy tipped tongues.

And why are hummingbird feeders colored red?

The experts say that the hummers are not interested in the color red, but nectar feeding insects are. Larger insects are better at locating pale-colored flowers than red flowers. As the insects deplete the nectar in the pale flowers, the more fruitful flowers for hummingbird nourishment are the red ones.....so the 1.5 oz. Anna’s, and others go for something red for maximum nectar. (By the way, the Calliope Hummingbird tips the freight scale at 0.1 oz.).

A grosbeaks beak sticks out like a sore thumb........a great identifying feature. This beak lets the grosbeaks crack sunflower seeds with ease. And, during breeding season especially, these sturdy beaks crack the hard shells of numerous larger insects when abundant food supply is needed. And even with a tough, gnarly beak grosbeaks are more hesitant to invade suet feeders than are titmice, woodpeckers and others.

Left over fishing bait.......put the mealworms, waxworms, etc. on your platform feeder. You should attract bluebirds this way. An empty bluebird box may become occupied if worms are available for food.

And so goes the Cornell magazine-----a captivating thing to read.

Many complaints are heard about bears and squirrels invading suet and seed feeders. Consider the old bailing wire trick. Hang the feeder from a length of bailing wire stretched from a wall, unreachable by either pest. House leaf gutters can be securing points for the wire.......stretch the wire from closeby corners of your house and hire a 6' 10" NBA star to refill the feeder. Just kidding.......a safely climbed step ladder will work. And try to hang suet in the shade to preserve it longer. Suet feeders provide great, easy nourishment during the winter months, especially.

A couple words on field trips. Sandhill Cranes are usually seen at Llano Seco Refuge around Sept. 1. Last year a string of over 600 cranes could be viewed on the big pond on Sept. 15. Then, sadly, the end of Sept. saw a few scattered groups of cranes. Check Llano Seco on the computer for directions and try to get up there off of Rte. 162, 13 miles south of Chico.

Put the Marysville area rice fields way up on your list for SAFE, inexpensive wildlife entertainment November through January. You can keep social distance by avoiding groups and staying in your car, if you like.

For more information call me at: (530) 913-2240
Idaho-Maryland Mine Project

There is a project being considered by Nevada County that intends to reopen the Idaho Maryland Mine near Idaho Maryland Rd and Brunswick road. A Notice of Preparation required a response by August 17 asking for comments on what issues the Environmental Impact Report should address. Here are comments that SFAS submitted.

The NOP stated that the following issue areas will be addressed in the EIR:

- Air Quality
- Biological Resources
- Greenhouse Gas Emissions
- Energy
- Cultural and Tribal Cultural Resources
- Geology, Soils, and Mineral Resources
- Hazards and Hazardous Materials
- Hydrology and Water Quality
- Land Use and Population and Housing
- Noise
- Public Services, Utilities, and Service Systems
- Transportation
- Wildfire

Though each of these areas is important and undoubtedly will be addressed by others, we want to comment on air quality, biological resources, greenhouse gas emissions, energy, and noise that directly affect our mission.

Air Quality

Nevada County is out of compliance with air quality standards on many days of the year. We ask that the EIR address the additional air quality impact of the large number of trucks and gasoline cars that would be part of the ongoing operation of the mine. In a study of air pollution impacts on avian species via inhalation exposure and associated outcomes, respiratory illness was the most frequent problem found in the review, followed by increased stress levels, poor immune systems, reduced reproductive success, population declines, and more.

If there will be any economic impact on the surrounding area due to the air quality impacts of the mine operation, then the EIR must analyze and disclose that economic impact in order to determine whether business closures, vacancies and resulting urban decay may result from that economic impact.

Biological Resources

Sierra Foothills Audubon has been supporting a bird banding study since 2018 at the Bennett Street Grasslands banding station within 1/2 mile from the proposed Idaho-Maryland Mine. The water used in the mining process would be dumped into South Fork Wolf Creek, which runs through the banding meadow. Extensive additional truck traffic would potentially be created on Bennett Road, with noise levels and increased traffic causing impacts to birds, and areas with sensitive flora species affected. Yellow-Breasted Chat, Olive-sided Flycatcher, and Willow Flycatcher are all species of special concern or endangered and have been detected or captured at the Bennett Street Grasslands, which is part of the Empire Mine State Historic Park.

Energy

Nevada County recently adopted an Energy Action Plan. It calls for a 51% reduction in greenhouse gas emissions for electricity use and a 30% reduction in greenhouse gas emissions from natural gas use by 2035. Approving the Idaho-Maryland mine with its huge production of greenhouse gas emissions from trucks, auto and cement use would be a major offset to the goals of the County. Asking residents to cut down their use of electricity and natural gas risk of extinction from climate change. In the West, we’re already dealing with a multi-decade historic drought and longer, more intense fire seasons. Climate change threatens western water resources and some researchers are calling our new reality “aridification.”

The Biological Resources Assessment Report includes the biological results of the background research, reconnaissance-level biological surveys, data analysis, and impact assessment for the Centennial Industrial Site on special-status species. That included the California Black Rail (very low probability in the Centennial area) and Cooper’s Hawk (low suitable habitat). However, as the Audubon report points out, climate change can affect many bird species and could force them to become special-status species.

We would like the EIR to address the impact of the mine on climate change particularly on air quality, dewatering of the area, CO2 emissions from truck and auto travel and the resulting impact on humans and migrating and local bird life.

Greenhouse Gas Emissions

Audubon recently released a new scientific report, Survival by Degrees, showing that 64 percent (389 out of 604) of North American bird species are at
while greatly adding to GHG emissions with the mine would be highly counter-productive.

Grass Valley also recently adopted an Energy Action Plan. It calls for a 36% reduction in greenhouse gas emissions for electricity use and a 29% reduction in greenhouse gas emissions from natural gas use by 2035. The Idaho-Maryland mine is in the Sphere of Influence of Grass Valley and is a short distance from the Brunswick shopping area. Again, approving the Idaho-Maryland mine with its huge production of greenhouse gas emissions from trucks, autos and cement use would be a major offset to the goals of the City of Grass Valley. Asking Grass Valley residents to cut down their use of electricity and natural gas while greatly adding to GHG emissions with the mine would be highly counter-productive.

Noise

We ask that the effect of project noise on nearby residents as well as its impacts on wildlife in the area be carefully considered. In a study published in the January, 2016 Proceedings of the National Academy of Sciences, researchers found that adults and nestlings of three bird species including the Western Bluebird showed multiple signs of chronic stress caused by noise pollution, including skewed stress hormone levels, possibly due to increased anxiety, distraction and hypervigilance.

Cumulative Impacts

A recent EIR response to development plans has been as follows: “The City of Grass Valley has not conducted a greenhouse gas emissions inventory or adopted a Climate Action Plan, performance standards, or a GHG efficiency metric. However, the Grass Valley 2020 General Plan includes numerous goals, policies, and programs which, if implemented, will reduce Grass Valley’s impacts on global climate change and reduce the threats associated with global climate change to the City.

The NSAQMD has not adopted thresholds of significance for GHG emissions. Additionally, California Air Resources Board (CARB) has not yet adopted any tools to measure the impact of a project on global warming. Due to the nature of global climate change, it is not anticipated that a single project would have a substantial impact on global climate change. Although it is possible to estimate a project’s CO2 emission, it is not possible to determine whether or how an individual project’s relatively small incremental contribution might translate into physical effects on the environment.”

At the same time, the State of California has issued directives that require compliance with new standards for reducing climate change, realizing each county’s contribution is needed to reach the goals.

We ask that the cumulative impacts of projects such as the Mine be considered by the County in determining the validity of a project. Even if the EIR falls back on inadequate responses such as above, we would ask that the County consider the health and environmental impacts of this project on the community compared to the minimal, if any, benefits to the community. Gold shipped to India or China does not benefit the citizens of Nevada County.

Conclusion

One key takeaway is that if we reduce emissions by 2050 and hold warming to 1.5°C, we expect 38 percent of the bird species would come off the climate vulnerable list.

What are the best ways to help birds (and people) in the West?

- Increase reliability of our water supply (now and in the future)
- Support clean energy measures at the local, state, and federal levels;
- Restore and protect priority habitats;
- Manage water comprehensively with an understanding of the connections between surface water and groundwater, and more.

Welcome New Members

Grass Valley: Sharon Wyatt
Lincoln: John Garfein
             Heidi & Joe Mazzola
Nevada City: Nadine Narita
Pollock Pines: Mark Bowen
Truckee: Serina Hays

www.sierrafoothillsaudubon.org
NOTES FROM A NEW BLUEBIRD BOX MONITOR
By Margaret Ervin

This was my first experience monitoring a nest-box trail, and I had no idea that each time I opened a bird-box door, I would find a new surprise inside! My field notes show the season unfolding on the Alan Theisen Trail in Alta Sierra:

"March 23: First activity in one of my 11 boxes -- a few grasses on the floor.

"April 22: Box 8 has a nest with 2 blue eggs!! Six nests total; one has a blue feather and one has 9 light speckled eggs and a little bird nearby. I can't see all the way into the nests, so I am taking pictures with my cell phone. When I get home, I look at the pictures over and over.

"April 25: Seven nests now -- Western Bluebirds, White-breasted Nuthatches and Tree Swallows. First Bluebird hatchlings should be in Box 8 (5 eggs), around May 9. Woohoo! Excited to see what happens next. So fun to see the mamas on the nests. Great day.

"May 10: It's Mother’s Day and the first hatchlings are here! My adult granddaughter was with me, and neither of us had ever seen newborn hatchlings. They were so small and still that we thought they might not be alive. I told her to think of them as sleeping. Hope I'm right.

"May 19: Sure enough, those Box 8 babies were just sleeping! Today they’re fine. In Box 1, an unknown number of Tree Swallow hatchlings are growing fast. I can't get an exact count, because the parents get very agitated when I am there and the nest is very fluffy with feathers. Sometimes they dive bomb me when I come close.

"June 13: Box 4 has 5 Bluebird eggs that did not hatch. So sad. But 21 Bluebirds and 9 White-breasted Nuthatches have fledged, and the swallows are nearly grown. The Box 8 Bluebirds fledged 5 chicks on June 2, and one week later they had already begun a second brood, with 4 fresh eggs!"

All in all, this has been fun experience for me and I have been able to share it with others. I’m looking forward to next spring and whatever new discoveries I might find.
Because we are unable to hold in person general meetings, we have decided to video a couple of programs for your enjoyment. In our first program Diane and Steve Rose will address the use of eBird. Since we can safely bird during this pandemic, as we are all taking on new challenges, this is the perfect fit.

We encourage all birders to become citizen scientists by recording their observations on eBird. It is an excellent source for locating birding hotspots and rare sightings, and for letting you know what species are commonly found in your area. It can keep your lists, and you can share them with others. I’m sure the application has lots of other attributes that I am not aware of yet.

The program will be on our Face-book page and our website (search for Sierra Foothills Audubon Society). The time and date that it will become available will be announced on Face-book, on the website, by e-mail and hopefully in the Union.

Diane and Steve Rose have been avid birders for nearly 50 years. After birding with a friend at Pt. Pelee, Ontario, Canada, they were hooked. Soon after returning to California and birding in Ventura County, they became active world birders, birding in 45 countries and living in Kenya. In 2014, Diane and Steve embarked with the SFAS on a huge project to define the breeding birds of Nevada County. It was a 6 year commitment of time, determination and stamina. With help, they were able to finish the project and write the book The Breeding Bird Atlas of Nevada County, California.

This is truly a must-have reference for all birders of the Sierra. No other individuals or groups have undertaken a county in the Sierra as a breeding bird project.

All their record keeping over a lifetime and for the Atlas project has shown them the value and importance of eBird. It is a place where birders from all over the world submit and share their sightings daily. Steve is now the eBird reviewer for Nevada County.

The video will be a quick overview of the eBird website and details on how to submit a checklist to eBird, making it accessible for even an absolute beginner. Have paper and pencil handy and/ or your computer with the eBird app installed. https://www.facebook.com/pages/category/Nonprofit-Organization/Sierra-Foothills-Audubon-Society-130839436987998/
https://ebird.org/home

An introductory membership to the National Audubon Society is $20 and includes automatic membership in the local SFAS chapter. Subscription to NAS includes the bi-monthly NAS Audubon Magazine and the SFAS Phoebe newsletter. Send a check payable to NAS, Membership Dept, PO Box 97194, Washington, DC 20090-7194. Or you can join online at www.audubon.org and click on “JOIN.” For more information, contact Kate Brennan at 530-268-1682.

Two levels of membership are available: SFAS Chapter Membership is $20 annually and includes a subscription to The Phoebe newsletter and an invitation to the many chapter activities. For $200 you receive a lifetime membership in the chapter. Send a check payable to Sierra Foothills Audubon Society, P.O. Box 1937, Grass Valley, CA 95945.

Become a SFAS Member

www.sierrafoothillsaudubon.org
FIELD TRIP REPORT

By Dale Rubach: Field Trip Chair

We are anxious to begin field trips again, but frustrated that we remain in limbo until we can be sure that group trips can resume safely. So as of this writing, it is still unknown when we can begin scheduling group outings and will not do so until it is safe.

Meanwhile, the birds don't care about the virus and are still out there for everyone to see. I encourage you to venture out on your own. One excellent resource for self-guiding is eBird (www.eBird.org), which can be downloaded as an app to your phone or computer. Once connected go to Explore, enter Nevada County, then click on Hotspots. There will be one hundred places listed as potential trips. Each area will have directions on how to get there and checklists of species to be seen with bar graphs of abundance during the year. If interested in a county other than Nevada, just repeat the process with the county of your choice. In most of these places it is easy to practice social distancing and be isolated from crowds. Fall migration is well under way offering the possibility of finding interesting and new species. So go out and enjoy the wonders our counties have to offer.