SPEAKER SERIES

Free and Open to the public

Richardson Bay Audubon Center 376 Greenwood Beach Road, Tiburon

THURSDAY, MAY 14

Mono Lake: A Simple Ecosystem with a Complex History

By Nora Livingston



Mono Lake

This Speaker Series meeting by Nora Livingston is going ahead as a Zoom Teleconference at the regularly scheduled meeting time, May 14 at 7:30. Information on how to access this teleconference will be announced on the Marin Audubon Society website.

Join naturalist Nora Livingston for a talk about Mono Lake, one of California's best birding spots, to learn about the natural, cultural, and political history of the lake and the birds you might expect to see there. Nora will share current news about the lake and about the exciting natural history programs she leads in the summer.

Nora Livingston is the Mono Lake Committee's Lead Naturalist Guide. She leads natural history field seminars, custom birding and ecology trips at Mono Lake, and co-organizes the Mono Basin Bird Chautauqua. Nora spent 8 years as a field ornithologist in many supreme California locations including the Farallon Islands, Santa Cruz Island, Point Reyes, and the Eastern Sierra before switching to interpretation to share her knowledge about birds and Mono Lake with visitors from around the world.

Next month's speaker:

THURSDAY, JUNE 11

7:30 PM

Habitat Potential

With Josiah Clark

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Newsletter of the Marin Audubon Society. Vol. 62, No. 9

May 2020

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MARIN AUDUBON SOCIETY

USFWS Farallones Restoration Plan - Facts



About half of the world population of **Ashy Storm-Petrels** nests on the Farallon Islands in crevices and natural cavities in habitat including this on South Farallon Island.

s of this writing and due to the pandemic, the Coastal Commission schedule has slipped; now the Consistency Determination hearing for the US Fish and Wildlife Service's Mouse Eradication Plan for the South Farallon Islands will not be heard until August or September and it will be a meeting on Zoom. The Commission will be deciding whether the Plan is consistent with the state coastal zone management program. The Marin Audubon Society's informational program on the USFWS plan is also rescheduled, for July 16, and it, too, will be a meeting on Zoom. Further details will be forthcoming in the next issue of *The Rail* and

on the Marin Audubon website.

Leading endangered species and marine conservation organizations - Point Blue Conservation Science, Audubon (Marin, Golden Gate, California, National), The Nature Conservancy, American Bird Conservancy, Island Conservation, BirdLife International, etc. – support the USFWS plan. We see the plan as an urgently needed response to preserve and protect the rare Ashy Storm-Petrel and other native animals and plants threatened by the accidental introduction of invasive mice by humans. About half of the world's population of this species of storm-

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MAS Annual Elections

Usually the MAS Annual Meeting and Board of Directors elections are held at our May Speaker Series Program. Because of COVID-19 and the associated restrictions for distancing and staying in place and our uncertainty about conducting an election on ZOOM, we have sent ballots to our members to vote by mail in accord with our By-laws. Please return your

ballot by mail to have your vote recorded.

This year you'll be voting on Board members for three-year terms. Our nominees are: Robert Hinz, Megan Kehoe, Elyse Omernick, Lowell Sykes and Doug Wallace. Terms begin in June.

By now, you should have received a ballot in the mail with instructions on how to vote. If you have not, please contact Barbara Salzman.

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BOARD OF DIRECTORS

Most phone numbers are in the 415 area code unless otherwise noted. Ouestions? Please contact the appropriate Board member.

Barbara Salzman 924-6057 Vice President Lowell Sykes 388-2821 Secretary Ann Thomas 914-9559

Treasurer

Phil Peterson 828-4780 Conservation Barbara Salzman 924-6057

Field Trips Jane Medley 559/760-1551

Membership Secretary

Elyse Omernick 694-2320

Contact Elyse for membership problems

or questions.

Membership Chair Ann Thomas 914-9559

Outreach, Social Media

Elyse Omernick 694-2320

Speaker Series

Doug Waterman 415/506-4675

Special Projects Jude Stalker 680-6291 Doug Waterman 415/506-4675 Nominating

Editor, The Rail

Website

Bob Hinz 383-8688

Ed Nute 669-7710 **Property Management**

Volunteer Coordinator

BAAC Reps Lowell Sykes 388-2821

Barbara Salzman 924-6057

DIRECTORS MEETINGS

Meetings open to members. If you wish to attend please call 924-6057. 6:30 PM, First Tuesday of the month Richardson Bay Audubon Center 376 Greenwood Beach Road Tiburon, California 94920

MAS telephone: 721-4271 (for messages only)

Marin Audubon Society is a nonprofit 501(c)(3) organization. All memberships and contributions are tax-deductible to the extent allowed by law.

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Website: www.marinaudubon.org Members can receive The Rail electronically instead of a hard copy by emailing membershipsecretary@marinaudubon.org

DONATIONS APPRECIATED!

Marin Audubon Society welcomes gifts of funds, stock, or property, and bequests in general, or in honor or memory of someone. Gifts may be directed to any MAS project. Unspecified gifts of more than \$500 will be placed in the Endowment Fund for conservation, the protection of wildlife species. and the preservation and enhancement of wildlife habitats. Since MAS is an all-volunteer organization, 100% of your donation goes to its projects. All gifts are tax-deductible and will be acknowledged in The Rail, as well as personally on behalf of the Society. Checks should be made out and mailed to: Marin Audubon Society, P.O. Box 599, Mill Valley, CA 94942.

MISSION STATEMENT

To conserve and restore natural ecosystems, focusing on birds and other wildlife and their habitats, for the benefit of humanity and the earth's biological diversity.

President's Letter

By Barbara Salzman

It's a time to reflect on the importance of our work protecting and restoring habitat and on our interconnectedness with natural systems. The connection between human health and well-being has never been more clear. The Covid-19 virus is thought to have come from a bat taken from the wild and sold in a wet market in Wuhan, China. Butchering the bat likely released this virus to the world.

The disastrous spread of this virus and others throughout the world is a lesson that we can't continue to encroach on wild lands and wildlife without impacting human health and human life. While the virus is the most egregious example, there are multitudes of other ways we suffer from intruding into or destroying natural systems. We know how important wild lands and wildlife are to our lives because we turn to nature to overcome our isolation and lift our spirits; we turn to nature to experience the calming and uplifting effects of our natural world. This is but one of the many ways the natural world benefits us. We will continue to do our part to work to protect and restore our wild habitats.

Our habitat enhancement work continues. We still need to replenish our native plants, pull weeds, and water to keep our vegetative habitats growing, although we are working at a slower pace with one or a few volunteers only. We will be sending our usual spring appeal letter to support our habitat enhancement work. It will be a bit later than in other years. We would appreciate your giving what you can. Don't give anything if you are in financial difficulty.

We will not be sponsoring any field trips or programs until health restrictions are lifted and we feel our members can be safe. This will certainly be through May, and possibly later. In the meantime, we will be using Zoom for programs. If you have not tried Zoom so far, give it a try. It's not difficult. We'll be evaluating and reevaluating conditions, and continuing to be guided by the social distancing recommendations of our state. Keep in touch with our website. If you live in the hotter, drier parts of the county, such as North San Rafael or Novato, and are a beginning birder, Carol Oakes blog: carolgoesbirding.com, can be a guide to what you might find in your neighborhood. You can also find some of these birds in more moist neighborhoods.

We're happy to announce that work is soon to begin on a revision of the Marin County Breeding Bird Atlas. At a Special Meeting the MAS Board voted to hire Juan Garcia to manage and undertake the process of revising the 1985 Atlas. This effort is made possible by a bequest from our long-time active member Mimi Burton, who died last winter. Mimi, along with her husband Neil, was a dedicated

Marin Audubon supporter and volunteer. For years Mimi chaired the Mother's Day Picnic, and supported Marin Audubon in many other ways. We thought it would be a fitting tribute to Mimi to use the funds she left us to update the atlas and to dedicate the atlas to her memory. Juan is currently gearing up for the job ahead. To accomplish a large project such as this, volunteers are essential. For those unfamiliar with breeding bird atlases, nest sites throughout the county are identified and recorded. So Juan will need lots of volunteers. Breeding bird atlases are important to identify trends in bird populations, to understand current and changing conditions, and to inform decisions during this time of change and environmental threats.

We apologize for delays in processing memberships. Our new treasurer, unfortunately had to resign due to family illness, and that, combined with the isolation imposed in response to the virus, has caused delays in our functions. We greatly appreciate Ann Thomas stepping forward to take over temporarily, while we find a new treasurer.

We've been holding our meetings on Zoom and are also planning to conduct our Speaker Programs on Zoom beginning with the next one on May 14. We hope you will join us.

MAS FIELD TRIPS

UPDATE: ALL FIELD TRIPS ARE CANCELED THROUGH MAY 31.

Because of the uncertainty during the pandemic in being allowed to have access to many locations and in being allowed to have a group event, please check our website, http://marinaudubon.org/ events-field-trips.php, for the latest

Don't stop birding! Look for surprises in your backyard and in your neighborhood. They are important birds, too.

Overnight Field Trip: Sierra Valley June 19-21, 2020 With Rich Cimino

Registration opened March 2, 2020 several spaces available

THANK YOU, DONORS

Suzanne Badenhoop, Andria F. Benner, Janice Bennett, Tessa & Fred Cherniss, William A. Clarke, MaryAnne Flett, William Gonda & Sally Sehring, Sallie Griffith, Michael B. Gross, James Harrison, Richard Jennings, William & Katherine Jones, Sarah C. Karste, Kathleen T. Lowrey, Sarah Martin, Kent L. McDonald, Mike Moser, Marianna Riser, Ruth S. & David D. Thompson, Martha Wickliffe

USFWS Farallones Restoration Plan

continued from page 1

petrel nests on the Farallones.

Introduced rodents on islands around the world are devastating these unique habitats. Both rats and mice have been successfully eradicated from islands using targeted chemical treatments.

Opposition to the USFWS plan, most of which seems to be arising from WildCare and some organizations and individuals, appears in large part to be opposition to the use of lethal chemicals. If there really were a feasible non-lethal means of removing mice from the Farallones, the scientists, who have dedicated their lives to restoring the Farallones, would jump to embrace it. Opponents have lost sight of the purpose of the project, that is, to restore the unique ecosystem of the Farallones. Marin Audubon is working to ensure it is restored.

No one likes to use rodenticides. But the one-time highly controlled application of rodenticide was found to be the only effective method of eradicating mice on the Farallones. This is completely different from the unregulated use of chemicals for rodent control in back yards and agricultural fields on the mainland.

The chemical formulation proposed for use here, Brodifacoum-25D Conservation, is highly regulated and approved by the EPA specifically for use on islands. Use of another, less toxic chemical has been suggested, but that chemical has been extensively tested and found to be

ineffective removing mice. Mice apparently do not like it because they do not eat it.

Birth control chemicals have never been used successfully to eradicate other species of rodents on islands.

Use of a birth control chemical to render the mice infertile has also been addressed exhaustively by the USFWS and found to be infeasible. Although a scientist is currently working on developing one, such a product for mice has yet to be invented. Should a mouse-specific birth control chemical be developed, testing and environmental review to approve it would take many years. It is uncertain whether one could ever be developed and approved for use.

Besides the problem of developing such a chemical, it would only be a method of control but not eradication, because it would only achieve temporary infertility but not permanent sterilization. Such a birth-control chemical would have to be applied continually until all mice naturally die without reproducing. It is also uncertain and unlikely that mice would take birthcontrol bait regularly enough to be effective for long-term infertility. Bait stations cannot be installed on parts of islands because some parts are inaccessible to people.

So far, successful mouse eradications using rodenticides have occurred on 61 islands out of 86 (four were subsequently reinvaded) treated. Success rates have improved over time and since 2007, 28 of the 30 mouse eradications undertaken have been confirmed as successful (Samaniego 2016) with the other two having unknown

fates, not failures.

Concerns have been expressed about killing other wildlife. Measures to protect the marine environment and other wildlife are part of the project.

The Plan includes procedures to prevent the bait from entering the ocean waters. The USFWS expects a small amount of bait drift, primarily from bait falling down cliffs. Studies at islands comparable to the Farallones (e.g., Anacapa Island) have shown that impacts of this amount on the marine environment have been negligible.

Measures to prevent impacts to native non-target wildlife include, first of all, timing of the application to be in the fall when the fewest animals are on the islands. Second, an effective hazing program has been tested on the Farallones, and, finally, carcasses will be collected to avoid scavengers eating them. The USFWS anticipates some loss of some birds, primarily Western Gulls, but the impact will be well below having any population effect, based on similar projects on other islands.

If the mice are not eradicated from the Farallones and eradicated soon, impacts on the Ashy Storm-Petrel, the endemic salamander and cricket found only on the islands, the endemic daisy, and native nesting seabirds, in general, would be significant. The adverse impacts to the island ecosystem would be catastrophic. We support the USFWS' Plan to restore the Farallones' ecosystem and to prevent it from being destroyed.

PRESENTATION RESCHEDULED

Restoring the Farallones - Removing Introduced Mice

New Date: Thursday, July 16, 7:30 - 9 PM Presented via Zoom

The meeting will be held via Zoom. Directions on how to participate will be provided in the June issue of The Rail and on the Marin Audubon website, http://marinaudubon.org/ index.php.

The Farallon Islands, just off our coast, host the largest seabird rookery in the lower 48 states and have a unique biological value. Referred to by some as "California's Galapagos," the Farallones host 25% percent of California's breeding seabirds (more than 300,000 individuals of 13 species). After suffering its share of human-induced abuses, conservation successes on the islands include the recoveries of the Northern Fur Seal. Northern Elephant Seal, Rhinoceros Auklet, etc.

However, introduced non-native house mice on the Farallones still threaten sensitive native species including seabirds,

salamanders, crickets and endemic plants. The mice attract Burrowing Owls, which prey on Ashy and Leach's Storm-Petrels after the mouse population seasonally crashes, putting the storm-petrels on a population trajectory towards extinction.

Yet the restoration potential is great. To find out more, join the Marin Audubon Society's special informational program on the U.S. Fish and Wildlife Service's proposed plan to eradicate mice from the islands. Eliminating the mice will allow the ecosystem of the globally important Farallon Islands National Wildlife Refuge to recover and restore a more natural

The program panel consists of scientists with long experience with the Farallones:

- · Gerry McChesney, Farallon Islands National Wildlife Refuge Manager;
- · Winston Vickers, DVM, MPVM, University of California, Davis;

- Peter Warzybok, Farallones Program Leader, Point Blue Conservation Science;
- · Roger Harris, Certified Wildlife Biologist, Oceanic Society.
- Anna Weinstein, Director of Ocean Resources, National Audubon Society, as Master of Ceremonies.

Next Steps: The California Coastal Commission's current plan is to schedule the Farallon Mouse Eradication for either their August or September meeting. The location of the meeting is not verified, but it will not be in Rohnert Park. The purpose of the plan is to determine consistency of the plan with the state's coastal zone management plan.

How You Can Help: Marin Audubon urges you to plan to attend the hearing and speak, or, if you can't attend, submit written comments in support of restoring the unique ecosystem of the Farallon Islands. More information will be provided in next month's Rail.

San Pablo Bay Fairfax Ross Larkspur San Francisco

MARIN AUDUBON PROPERTIES

1.	Petaluma Marsh Expansion Site	180 acres
2.	Bahia	60 acres
3.	Simmons Slough	144 acres
4.	Norton Avenue Pond	4 parcels
5.	Black Point Parcels	many parcels
6.	Arroyo San Jose	2 parcels
7.	Tiscornia Marsh	20 acres
8.	Tidelands and Murphy's Rock	34 acres
9.	San Clemente Creek Tidelands	4.34 acres
10.	End of Channel Drive	?? acres
11.	Triangle Marsh	31 acres
12.	Arroyo Corte Madera del Presidio	2 acres
13.	Cal Park	<1 acre
14.	Corte Madera Ecologic	al 5.2 acres

Conservation

BCDC ANCHOR-OUT HEARING

At the Bay Conservation and Development Commission (BCDC) Enforcement Committee hearing on April 9 both the City of Sausalito and the Richardson Bay Regional Agency (RBRA) presented their plans for removing anchor-outs from Richardson Bay. Sausalito came to the hearing with a history of significantly reducing anchor-outs in their waters to 12 boats, based on surveys dating back to July 2017. They accomplished this through enforcement, social services, and a Safe Harbor program that relocates anchor-outs into existing marinas. They requested BCDC's approval of their Legacy program, which would allow the remaining vessels to stay, and of a 10% to 15% increase in marina berths for anchor-outs. Sausalito defined Legacy anchorouts as experienced mariners who have lived on the water for many years (all are between 68 and 80 years old) and have seaworthy boats.

RBRA achievements were not so notable. Since August 2019 when the new harbormaster came aboard, it has reduced the number of anchor-out vessels in county waters from 160 to 125. They are also proposing a legacy program, called Safe and Seaworthy, that would allow vessels to stay moored on the bay if they are registered, navigable, and have experienced operators. They don't really know how many anchor-outs meet these criteria. RBRA's Plan proposes to diminish vessels gradually with the expectation that numbers would be reduced to 10 at the end of 20 years. To accomplish this, they propose to moor 50 anchor-outs somewhere in the Bay, either where there is no eelgrass or where the eelgrass is damaged. RBRA also wants to allow current anchor-outs who have to leave through enforcement actions on unseaworthy vessels to return one time with a different boat. RBRA also proposes to plant more eelgrass in areas where the eelgrass is not likely to come back on its own.

BCDC's Enforcement Committee members did not waiver from their charge of protecting the Bay and carrying out the 1984 Richardson Bay Special Area Plan's directive to "remove all anchor-outs from the Bay." The Committee said 20 years is far too long to wait for their removal and charged the RBRA and Sausalito to come back with plans to transition all anchor-outs from the Bay in 10 years at the longest, preferably in 5 years. RBRA's proposal to allow a one-time vessel replacement was rejected. As one commissioner put it, "It's going in the wrong direction. We want to see fewer boats returning." Regarding eelgrass, a commission expressed interest in the potential for eelgrass replacement, and more information on a pilot project was requested.

Recognizing that it will be politically challenging and advising that the jurisdictions

proceed with sensitivity but with enhanced enforcement, the Committee directed the jurisdictions to return in 8 weeks with their new plan.

After more than 35 years, we were pleased that the committee proceeded with understanding but remained firm in requiring removal of anchor-outs from the Bay. They expressed no interest in a mooring field and clearly rejected an extended period of 20 years at the end of which there would still be anchorouts, as not complying with BCDC policy. Ten years is still a long time. Ongoing enforcement and oversight will be needed to ensure the process does not wane and leave the Bay in the state that has existed for more than 30 years. The failure to enforce has resulted in damage to eelgrass, degradation of the bay and has contributed to anchor-outs believing that they have a legitimate right to live on the Bay. Clearly that is not the case.

NOVATO GENERAL PLAN EIR

MAS submitted comments to the City on revisions to their general plan that focused on the Environmental Stewardship component. Based on our long-time conservation policies, we raised issues about the city's wetland protection polices which are not addressed in the plan and are minimally discussed in the EIR. There is no discussion of policies that would control wetland losses. We requested that the EIR require that the impacts be avoided, and if that is infeasible, that mitigation be required and that the mitigation location, acreage ratio, habitat type, and vegetated buffer be addressed. Some of the policies contain qualifying language such as "seek to," "endeavor to" and "consider." We suggested that active verbs be used such as "Retain tidal marshes" instead of "Seek to retain tidal marshes."

Concerning Novato's focus areas, we expressed concern about protection of the stream, Arroyo San Jose, that runs through the Ignacio Industrial Area which is projected to have significant expansion. Finally, we proposed consideration of native vegetation for reducing greenhouse gases and contributing clean air, in addition to providing a habitat for native fauna.

NORTHERN SPOTTED OWL UPDATE

We are in the process of organizing outreach to residents within one-quarter mile of a nest or a nest area. It's been found that owls sometimes change trees but often nest in trees within a limited area. We will be sending letters to the residents telling them of the presence of a nest, while not divulging the exact nest tree, providing information on activities that could impact the owls and explaining how to avoid those impacts. As we go to press, we're preparing to print the packet material to be sent.

Reserve Expansion Site



Saving and Restoring the Petaluma Marsh Expansion

ur earliest association with Redwood Landfill was long before we even dreamed it was possible to purchase any of its property. It was a privately owned landfill operated by Jordan Smith of the Smith family that once owned most of the area (Smith Ranch Road). Iordan would never invite or let us on the property, but in the '90s several of us from MAS drove around the landfill a few times just to see what was going on. Then we were invited to meet by an employee of Cooper Crane and Rigging that had been hired as consultant to help with permitting for a project on the very property we now own. Needless to say, we objected to the project. They were not able to get a permit from the Corps of Engineers to fill wetlands. Not only did we later purchase the 182-acre site north of the landfill, but we later hired Cooper Crane and Rigging to construct many of our wetland restoration projects.

Located within the historic boundary of the 3,000-acre Petaluma Marsh, the largest natural (never been diked) tidal marsh remaining in the state, the property that we now own was diked off from the bay in the 1950s or early 1960s, possibly contemplated for future expansion of the landfill. It was leased to the neighboring Corda family for seasonal grazing pasture of their dairy cows.

When USA Waste took over the site, they brought in a new manager, Doug Sobey, who also joined Marin Audubon's Conservation Committee. We had recently purchased Triangle Marsh in Corte Madera, there was new funding for the Bay (CALFED), the property was on our "Needing protection" list and this 182-acre property looked like a good possibility to purchase. At some point, I suggested that Doug help protect and restore the diked

property by looking into the possibility of USA Waste selling it to MAS.

Doug worked some magic and persuaded the powers that be at USA Waste to sell the property, lo and behold, to us. The company hired a law firm to work with us on a purchase agreement. That led to a protracted negotiation on wording. Looking back, and even at the time, it seems like such a waste of time and money. We had agreed on a price of \$250,000 based on an appraisal, which we had done. There was nothing controversial.

In the meantime, we embarked on the task of raising then necessary funds. We received a grant from a USFWS Small Grant program which we used to prepare a preliminary design, and we applied to CALFED for a larger grant. We were turned down because we mentioned the landfill in the title of the project, and the reviewers, who apparently didn't read the proposal very closely, thought we were expanding the landfill. We reapplied, changed the name of the project to what it is today, and were awarded a grant of \$352,000.

While were negotiating the agreement, USA Waste sold the property to Waste Management Inc. We had some anxiety that they would not want to sell the property to us, but eventually the agreement was signed, and we completed the purchase a short time later in 2003. Waste Management still owns and manages the landfill.

In addition to the major grant from CALFED, we were connected up with Caltrans that needed mitigation for impacts to Sonoma Creek and wetlands for their Seismic Retrofit and Barrier Replacement of the Bridge over Sonoma Creek. Ordinarily we do not accept mitigation funds, because it means wetlands are being destroyed elsewhere, unless the mitigation is for a public

interest project, such as this, that would be permitted and constructed anyway. Caltrans also funded technical support from Coastal Conservancy. This combination of funding enabled us both to purchase and to restore the diked lands to tidal action.

With the Caltrans funding, MAS hired Philip Williams and Associates to develop a restoration plan. The plan involved breaching the levee in three places so that tidal waters would be introduced to the site from both San Antonio Creek and also from Mud Slough, a tributary of San Antonio Creek. Then we proceeded to get necessary permits—restoration projects are still subject to agency regulation as are all other projects.

One glitch in getting a grading permit from the county was public access because the property is land-locked, east of the Corda ranch, north of the landfill and west of the CA Department of Fish and Wildlife's Petaluma Marsh. We finally worked out access along the perimeter landfill road for views of the marsh.

Our project restored approximately 100 diked acres. The remaining approximately 82 acres are tidal marsh in two strips that look like mouse ears wrapping around Neil's Island, a naturally occurring island along the Petaluma River.

Our original approach of reinforcing the existing railroad embankment was not acceptable to NWPRR, the owner of the railroad. They wanted us to reconstruct the levee. Liability concerns prevented us from agreeing to that. Instead we constructed a new levee on our property using both imported fill that we trucked in and fill borrowed from on-site. That was the most cost-effective approach, although it still raised the cost of the project, but it

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HABITAT STEWARDSHIP PROGRAM

With the restrictions because of the viral pandemic, volunteering is limited, in part because of parking restrictions. Working at a distance of at least six feet (or thirty feet!) from each other is easily maintained. Because Triangle Marsh is across the road from Ring Mountain, parking on Paradise Drive was prohibited. Restrictions might be relaxed before the second Saturday stewardship day at our Corte Madera Ecological Reserve expansion project.

Our native plantings at Corte Madera are now over a year old and pretty well established, but the weeds, some annuals and some perennials, are providing some tough competition. We, of course, would like to limit the weeds if the situation permits.

At Triangle Marsh the newest plantings are all mulched and relatively free of weeds for this first growing season. Other areas need help for the usual problem species.

Extra time on your hands? Act locally and join us on a workday. We all make a difference.

Volunteer Workdays Triangle Marsh, East Corte Madera:

First Saturdays: May 2, June 6
Parking might not be permitted.
Meet at 10 AM on Paradise
Drive directly across from the
Ring Mountain trailhead near the
Montessori School.

Corte Madera Ecological Reserve: Second Saturdays: May 9, June 13

Meet at the end of Industrial Way. With or without pandemic restrictions, parking on Industrial Way is now limited by a new gate built by Corte Madera. Parking at the Cost Plus shopping center is possible, but it might be subject to some limitations.

For up-to-date information, contact Martha Jarocki, marthajarocki@gmail.com or phone 415/461-3592.

Contact Martha Jarocki, marthajarocki@gmail.com or phone 415/461-3592.

Bahia, Novato:

If you'd like to help, please contact Jude at judestalker@gmail.com.

THANK YOU, STEWARDSHIP VOLUNTEERS

Bob Harlow, Bob Hinz, Gerry and Martha Jarocki, Lowell Sykes

Habitat Stewardship

CORTE MADERA ECOLOGICAL RESERVE

Martha Jarocki, Bob Hinz and Bob Harlow surveyed the invasive species that need to be controlled by a limited number of volunteers on our property at the Ecological Reserve. We thought you might be interested in the weeds we'll be removing. The list includes Harding grass, some of which is in small clumps that can be dug fairly easily. Larger bristly ox-tongue plants should be dug where they are close to flowering. California burclover should be cut soon with a string weed trimmer, before it dries up and the mature burs detach from the plants and attach to volunteers' shoes and socks. Fennel is scattered throughout the site, and smaller plants should be removed before they grow and seed a new patch. Birdsfoot trefoil (Lotus corniculatus) regardless of how fast it spreads, should be limited to less dense clusters. It is a nuisance because long stems radiate out from a taproot and with neighboring trefoil plants create something like a net, sometimes around Harding grass. The 'net' would hold the Harding grass down even when the Harding grass has been dug/ cut off. Italian Thistle blooms soon and is higher priority than Milk Thistle, which is not so invasive. Both should be dug or pulled. French Broom seedlings should be pulled. Our volunteers now have to set to work removing these invasives.

To close the larger gaps under the existing



Harding grass seed heads

fence, we'll be adding fencing material that matches the existing fences—chain link for the fence along the trail and mesh for the holes under the wood fence. Dogs are getting under both fences.

BAHIA

Our volunteer Lowell Sykes did quite a bit of watering of the plants that were installed this past winter to outcompete the invasive radish.

MAS Embarks on Re-study of Breeding Birds

By Juan F. García

Marin County offers a year-round spectacle of avian life. As the seasons change, we bear witness to great migratory movements in fall and spring, the winter sojourns of waterfowl and shorebirds, and the annual arrival of nesting birds.

Marin County is also the home of one of California's great bird books. Dave Shuford's *Marin County Breeding Bird Atlas*, published in 1993, belongs on the bookshelf of every serious birder with an interest in the birds of northern California. The rich species accounts in that work were accompanied by an impressive descriptive apparatus that treated the county as an array of interlocking ecosystems. Shuford and his collaborators bequeathed to posterity a fundamental reference guide to the conservation of birdlife in one of our state's loveliest landscapes.

Yet it is in the nature of the breeding bird atlas, as a genre, to invite reconsideration. Are the same birds breeding now as were when Bob

Stewart and Dave Shuford organized the field surveys on which the Atlas was based? Have new species found the county a welcoming place to raise young? How have habitat restorations completed since then affected breeding status? Has human development resulted in adverse impacts on birds?

To answer these and other questions, a new study is needed. With this in mind, the Marin Audubon Society has embarked on a major new project – a second Marin County breeding bird survey that will result in a new published atlas.

I am honored to have been tapped by MAS to undertake this re-study with Shuford's endorsement and counsel. I look forward in coming issues of *The Rail* to laying out my plans and turning to the MAS community for support. Meanwhile, let's all be on the lookout for evidence of breeding! You can help by reporting "Breeding Codes" with your observations at www.ebird.org.

MARIN BIRDLOG: MARCH 2020

By Noah Arthur

March 2020 will go down in history as the end of Marin birding as we knew it. With a shelter-in-place order and park closures in place by the end of the month, there were understandably rather few rare bird reports this month.

In better times that may never come again, March was a month when Marin birders hunted riparian woods everywhere for first-of-season spring migrants. Some of that happened early this March, and the first singing Wilson's Warbler of the season was at Muir Beach on the 2nd (JP). February Wilson's warblers this year might have been wintering birds, but this singing male was almost certainly a new arrival.

Two Marbled Murrelets were off outer Pt. Reyes on the 3rd (PC), and the longstaying Black Vulture put in an appearance on the 4th at Muddy Hollow (TP). On the 6th a male Common Teal was at Rush Creek in the Petaluma Marsh Wildlife Area (WL). Las Gallinas on the 12th produced a Lesser Yellowlegs (JD, DL) and a probably newlyarrived Least Bittern (BB).

eBird reports began to decline sharply around the 15th as the COVID catastrophe got more serious, but a first-of-season Yellow Warbler was singing at the Marin headlands on the 20th (LCl). Also on the 20th, a Black-and-white Warbler at Muir Beach (LC, LS) might have been the same one that was seen occasionally in the area throughout the winter. Three Thick-billed Fox Sparrows were along Pine Mtn. Fire Rd. on the 20th (DS).

An interesting find on the 21st at Las Gallinas was a female duck that showed some characteristics of Garganey (LC, LS, MS). This bird was seen by many birders but remained uncertainly identified due to the similarity between female Garganey and Green-winged Teal.

Black-headed Grosbeaks hit West Marin around the first day of spring, with

one at Laird's Landing on the 21st, and another just across Tomales Bay at Cypress Grove on the

In what may be one of the last Outer Point rarity reports we will ever see, a phenomenal seawatch from South Beach on the 25th yielded Black-legged Kittiwake, Pink-footed Shearwater, Black-footed Albatross, and a fly-by Yellow-billed Loon (MS, LS, LC). The National Seashore closed to the public soon after.

Another Common Teal was at Corte Madera Marsh on the 28th (AM). And the last rare bird of the month was a getting-late **Townsend's Solitaire** along Lagunitas-Rock Springs Rd. on the 31st (CC).

Observers and Acronyms AM: Alex Merritt, BB: Bob Battagin, CC: Connor Cochrane, DL: Don Lewis, DS: Dan Singer, JD: Judith Dunham, JP: John Paul, LC: Lucas Corneliussen, LCI: Logan Clark, LS: Lucas Stephenson, MS: Mark Stephenson, NW: Nils Warnock, PC: Peter Colasanti, TP: Todd Plummer, WL: William Legge







Petaluma Marsh continued from page 5

eventually worked out. The borrow ditch was a problem later. The on-site borrow ditch for the fill was very deep and, unknown to us, had very high levels of sulfide which prevented the growth of plants we planted along the levee sides and bench. They were the highest sulfide levels that had ever been seen by the lab where we took the samples for testing. Our attempts to re-vegetate failed for years, and finally we gave up. It is only in the last few years that native species have begun to recolonize naturally as rain has leached chemicals from the soil. On the other hand, native wetland plants, cordgrass and pickleweed, have restored the tidal area naturally as anticipated.

We were also able to remove the old hunting shacks that were on our property along Mud Slough. The property boundary runs along the middle of the slough. Those that remain are along the north side of the slough. One was allowed to remain at the request of the person who was using it. Most were collapsing. It was more efficient and cost effective to remove them before the restoration while the original levee was still in place.

The first breach took place in December 2006. The other two breaches followed with the restoration completed in February 2007. Today the site is a thriving wetland, once again functioning as part of the Petaluma Marsh. As anticipated, a channel network has formed. Higher areas within the marsh, created to guide channel formation, and much of the marsh plain has vegetated with marsh species. It provides habitat for the endangered Ridgway's Rails, for other special status species, for large flocks of diving birds at high tides and for shorebirds at low tide.

The best place to view the marsh is from the SMART train. Look toward the east between the landfill and San Antonio Creek. We are anticipating doing a field trip to our properties. Do let us know if you're interested.



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