

THURSDAY, MARCH 14 7:00 PM

Re-discovering and Conserving the Black-Naped Pheasant-Pigeon, A Critically Endangered Species

By Jordan Boersma, Cornell Lab of Ornithology



The Rail

MARIN AUDUBON SOCIETY



Jordan Boersma

Black-naped Pheasant-pigeon

Register for this month's program on the MAS website's Speaker Series page.

Jordan Boersma will discuss the Black-naped Pheasant-Pigeon, a critically endangered species that hasn't been documented by scientists since it was first described in 1882. In 2022, Jordan and his team embarked on an expedition to Fergusson Island, Papua New Guinea, and by leveraging the natural history knowledge of local hunters, was able to confirm the existence of this species, known locally as Auwo, thus demonstrating the invaluable role of Indigenous communities in ongoing efforts to relocate species lost to Western science. Plans are to help conserve this elusive and culturally important species and continue to uncover natural history information about Auwo and other endemic taxa on Fergusson island.

Dr. Boersma's interest in animals led to pursuing a degree in Wildlife Biology from the University of Montana. While there, he got involved in a local study on nesting songbirds, which led to an opportunity in the same research group in Malaysian Borneo. In New Guinea, he is now working with local communities to study and conserve rare and potentially imperiled species.

THURSDAY, APRIL 11 7:00 PM

Monarch Butterfly

By Mia Monroe, Xerces Society and Western Monarch Count

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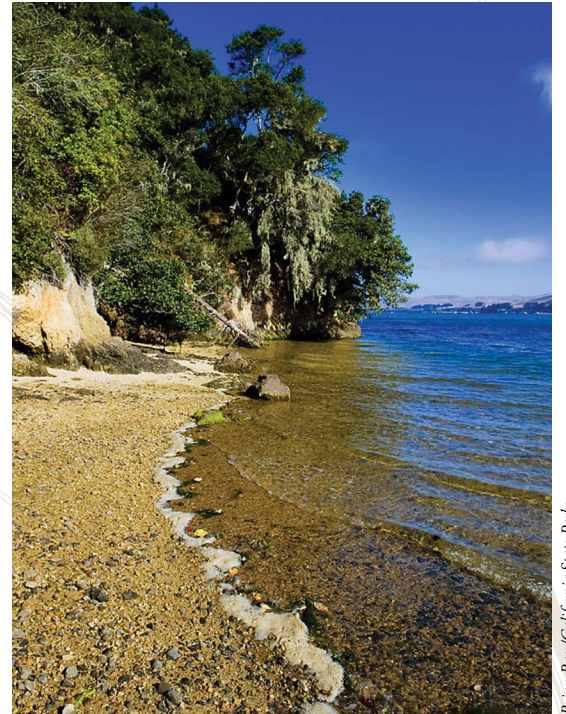
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Forest Health and Wildfire Resilience Plan for Tomales Bay State Park

In late January, Marin Audubon provided comments to California State Parks (CSP) in a relatively new process of adopting a Public Works Plan (PWP) by the California Coastal Commission (CCC). CSP conducted public meetings and accepted written comments on the PWP for the Tomales Bay Forest Health and Wildfire Resilience Plan (Plan). The PWP is a framework for reviewing and implementing a specific project or series of projects. The Plan is for a 10-year-long project (possibly longer, as it can be extended) that is intended to restore the health of Tomales Bay State Park (Park) and its resilience to wildfires by using various treatments. These include prescribed burning, manual removal, prescribed herbivory (use of livestock to remove vegetation), mechanical treatment, and herbicides. The CCC must concur that the PWP is consistent with the Coastal Act before the Plan can be implemented.

Fire suppression over many decades is considered a major issue that has resulted in the decline of the Park's bishop pine forest. Bishop pine is a coastal species that requires fire or hot weather for seeds to regenerate. The PWP relies on the California Vegetation Treatment Program (CalVTP) for Standards and Requirements to guide the overall project and individual projects within it. The CalVTP is a programmatic environmental impact report prepared to allow agencies to perform vegetation treatment activities for the purpose of wildfire prevention statewide. CalVTP Standards and Restrictions are general in nature and do not address the unique conditions in the Park.

One of the more striking deficiencies of the PWP is its failure to address wildlife. Of specific concern is that it does not mention the Northern Spotted Owl (NSO), even though four nest sites have been confirmed in the Park. There is a general Standard calling for the protection of endangered and special-status species nests by establishing 100-foot buffers, however, the U.S. Fish and Wildlife



Brian Boer/California State Parks

Heart's Desire Beach

Service requirement is for a quarter-mile buffer around NSO nests. There is also no mention of protecting the NSO's primary prey, the dusky-footed woodrat.

The PWP also allows for the removal of 65 percent of coastal sage scrub habitat, listed as threatened by the State of California and globally imperiled – more endangered, even, than tropical rainforests. Less than 10 percent of the original coastal sage scrub habitat remains statewide. All of it should be exempted from removal and restored.

One of the Standards (no. 5) included in the PWP addresses Environmentally Sensitive Habitat Areas (ESHAs). The discussion points out that most of the forest health activities that would take place in habitats would qualify as ESHAs. Both the Coastal Act and the approved Local Coastal Plan require that ESHAs be protected against "significant disruption."

continued on page 4

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Meetings open to members. 6:30 PM, First Tuesday of the month. Meetings are currently held online via Zoom. If you wish to participate please call 924-6057.

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

On behalf of the MAS Board, I would like to express our sincere apology to our winter appeal donors for the long delay getting thank you letters to you all. While I compose the thank you letters, they are printed by our bookkeeper using our accounting software. Unfortunately, due to her other commitments, there have been delays in processing the letters this winter and in getting them to me in a timely basis so I could write personal notes. We want to make sure this does not happen again. We are planning to implement a software program shortly that will help us acknowledge donations and communicate our appreciation in a much more prompt way and will have other benefits.

Our Nominating Committee wants to hear from members who may be interested in joining our Board. To find out more, contact members of the Nominating Committee Ellena Ochoa, volunteercoordinator@marinaudubon.org; Doug Waterman, dglswtrmn@gmail.com; or Mike Anderson, mdander65@gmail.com.

Residents who live within a quarter-mile of a Northern Spotted Owl nest site, will be receiving our information packet by the end of February. This our third year sending information to residents living in Activity Centers of Northern Spotted Owl as designated by the U.S. Fish and Wildlife Service. The packets contain information about spotted owl habitat needs, threats, how to protect them and who to contact if there is a problem. We partner with the Marin County Open Space District in compiling the packet information and with cities and the county in distributing the packets.

There was an impressive and depressing, NOVA program on February 7, about the significant decline of shorebirds worldwide. Stressors on shorebird populations shown in the program included habitat loss and degradation from human activities including

hunting, wars and agriculture as well as climate change. I was saddened to see a flock of sandpipers bunched together on a small patch of wetland when their former marsh habitat had been converted to an agricultural field. North America was not one of the continents investigated, but there is evidence of declines here. In addition, observations of lower numbers of shorebirds by individual birders have been reported. The Tomales Bay Shorebird Study (see article on page 7 by Roger Harris) by Audubon Canyon Ranch's Nils Warnock and three other scientists analyzed population trends over 30 seasons. Their analysis showed a decline in overall shorebird numbers, with Dunlin and Western Sandpiper suffering the greatest losses. Shorebird habitats in San Francisco are critical as overwintering habitat stop over during migration. I worry that in planning for habitat restoration along the bay, minimal attention is paid to providing habitat for shorebirds; shallow water, mudflat and sufficient upland unvegetated for peeps that feed and roost in flocks and need open vistas to spot avian predators. Unvegetated areas along shorelines that can serve as high tide roosts are not usually planned as a part of marsh restoration projects. Even if they are planned, providing unvegetated habitat is further complicated because it is very difficult to maintain ground in an unvegetated condition. For more information: <https://bit.ly/431123V>.

Water birds are getting restless – getting ready to move north to breed. They'll be leaving soon but we'll have flocks stopping over to rest and refuel during their migration north from further south. Now is the time to get out and see shorebirds and waterfowl while they are still here and on their migration route north – before they will be gone for the most part for the summer.

Tracking King Tides

San Rafael's King Tide Day on February 10 was a huge success. More than 100 people participated and ten teams visited locations where there was potential for flooding during the 7.2 foot king tide. The teams measured salinity, water depth (the deepest measurement was 18 inches, most saw less than 6 inches), and noted whether they saw any pollution e.g., Styrofoam, plastic bags etc. (most did). One team noted seeing 5 cormorants, 6 western gulls, and 1 unidentified marine duck. Afterward, interested participants learned about the Tiscornia Marsh Restoration project and took



Barbara Salzman conducts walking tour of Tiscornia Marsh on King Tide Day

a short tour along the marsh led by Barbara Salzman. Thanks to OPR for funding support.

MAS FIELD TRIPS

Open to the public

MAS is providing a full schedule of free field trips for the 2023 season.

Advance registration is required for most of our trips, nearly all which have size limits to prevent overcrowding. Registration will open 10 days prior to the trip date on the Marin Audubon website's Field Trips page.

Trips can fill up quickly. Please register early to make sure you get a spot. If you won't be able to attend a trip that you have registered for, please use the "contact organizer" button on the Ticketbud trip description page so that the spot may be opened for someone else. If a trip is closed when you try to register, use the "contact organizer" button and request to be put on the waiting list.

Recently Ticketbud has not opened for trip signups precisely at 8 AM. This has led to confusion among would be participants who assumed the message "There are no tickets available at this time" means the trip is already sold out, but it isn't, so please try to sign up again a minute or two later.

THE PONDS AT THE LAS GALLINAS VALLEY SANITARY DISTRICT (LGVSD)

San Rafael

Thursday, March 7, 2024 and

Thursday, April 4, 2024

8:30 AM to noon

With Sande and Bob Chilvers

No registration required. All participants are welcome to join this trip.

Join old friends and meet new ones on our regularly scheduled walks on the first Thursday of the month at Las Gallinas. We welcome bird enthusiasts of all levels, especially beginning birders, on this leisurely walk around the ponds. Special thanks to Bob and Sande Chilvers for volunteering once again to lead our monthly walks in search of waterfowl, waders, songbirds, raptors, and shorebirds. Among other birds, we will see various species of rails, swallows and teals.

We are likely to spot some interesting species, so come assist in our search. We all help each other to find and identify the birds, and there are usually several experienced birders to assist. You don't even have to arrive on time because we spend the first 30-60 minutes studying the birds around the first pond, and our group is easy to find.

DIRECTIONS: Hwy 101, exit at Smith Ranch Rd. Drive east on Smith Ranch Rd toward McInnis Park. Turn left immediately after crossing the railroad tracks and drive about 0.5 mile through the LGVSD gates and into the parking lot at the end of the road. Meet the group by the bridge just past the parking lot. There is an outhouse in the parking area for public use or you can use the bathrooms at nearby McInnis Park.

RODEO LAGOON

Marin Headlands

Wednesday, March 20, 2024

7:30 AM to noon

With William Legge and David Wiechers

Registration required. Registration opens March 10 at 8 AM on the MAS website's Field Trips page.

With early spring migration underway we will be looking out for migrant wildfowl, grebes, loons, gulls, and passerines. As

usual, the weather will dictate our focus with onshore northwest winds ideal for spring sea watches, while offshore easterly winds promise a good selection of late winter and early summer passerine migrants. Join us for a Sea Watch at 7:30 AM or arrive later at 8:15 AM for a circuit of the lagoon. This field trip is less suitable for beginners.

DIRECTIONS: Head south on Hwy 101 and take the last Sausalito exit just before the Golden Gate Bridge. At the exit stop sign, turn right and go under the freeway, then follow the road down to the left. Within 300 feet turn left at the sign to the Marin Headlands; this is the only available left turn before you begin the descent into Sausalito. You should see the tunnel with the five-minute signal light. Proceed through the tunnel on Bunker Road to the Rodeo Lagoon Parking Lot at the end and meet by the bridge over the channel to the beach.

LOCH LOMOND MARINA

San Rafael

SPECIAL INTRODUCTION TO BIRDING – WINTERING WATERBIRDS

Thursday, March 21, 2024

10 AM to noon

With Roger Harris

Registration required. Registration opens March 11 at 8 AM on the MAS website's Field Trips page.

Join Roger Harris and other Marin Audubon Society board members for a field trip specifically designed for people interested in getting some of the birding basics down. And there is no place better suited for that than the half-mile-long flat and paved levee path at the Loch Lomond Marina. With panoramic views of the surrounding bay, we should get close-up views of wintering waterbirds including Black Turnstones, diminutive Least Sandpipers, Black Oystercatchers with bubblegum pink legs, Snowy Egrets sporting golden slippers, and a variety of ducks, grebes, gulls, and cormorants. This is a terrific place for photography, if you like, but each participant is requested to bring binoculars.

DIRECTIONS: Head east on Second Street in San Rafael, which turns into Point San

Pedro Road. Continue approximately 2 miles past the Montecito Shopping Center to a red light at the intersection of Point San Pedro Road and Loch Lomond Drive. Turn right here, then turn left in front of Andy's Market (75 Loch Lomond Dr.) where the road comes to a "T" at the waterfront. Continue all the way east to the end of the road where you will find ample parking and a public restroom.

Dress warmly as some winter days here are cold and windy. Heavy rain cancels.

NICASIO/TOMALES BAY

Birding in Marin, Season 9 – Trip 3

Saturday, April 6, 2024

8:30 AM to mid afternoon

With Jim White and Bob Battagin

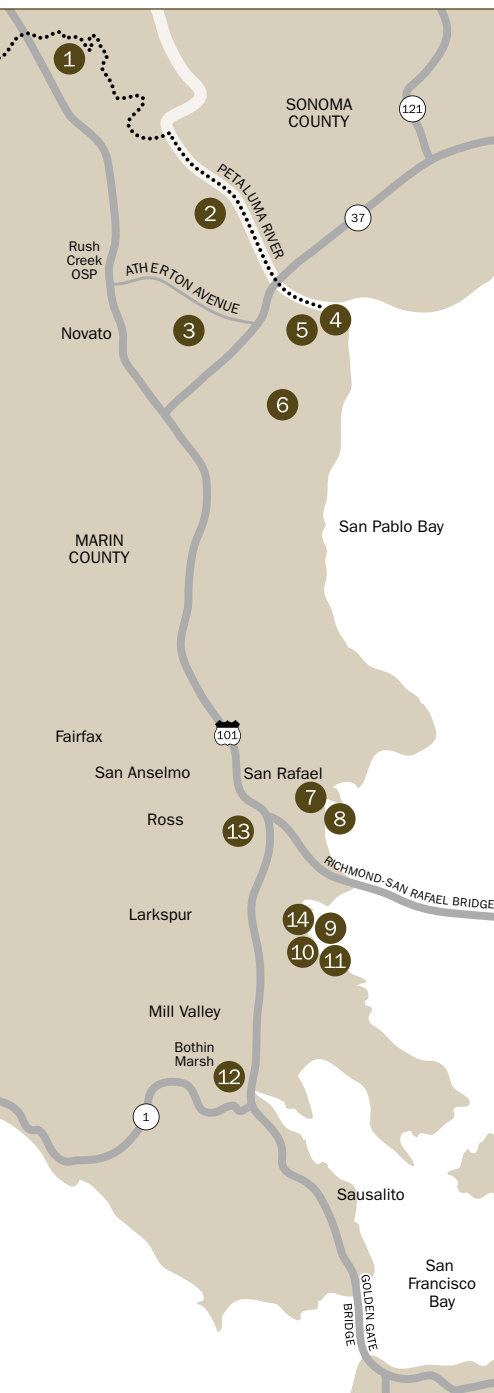
Registration required. Registration opens Wednesday, March 27 at 8 AM on the MAS website's Field Trips page.

The rolling hills of central Marin are covered with pastures, horse ranches, forested ridges, homes, reservoirs and occupied by many interesting birds. We will look for them in and around Nicasio and along the nearby stream before heading three miles north to see what is on and around Nicasio Reservoir. This is Bob's birding "patch" and he has found both Bald and Golden Eagles recently with a nice array of other birds in this vicinity.

We expect to travel the few miles to Point Reyes Station for a lunch break or picnic. In the afternoon we will explore the south end of Tomales Bay. Then, as time allows, we can explore the eastern edge of Tomales Bay along Highway 1, which supports a winter population of thousands of ducks, geese and shorebirds. We might travel 10 miles north to see if an Eagle's nest is having success. Heavy Rain cancels.

DIRECTIONS: From Hwy 101 in north San Rafael take Lucas Valley Rd west 10.3 miles then right turn onto Nicasio Valley Rd for 0.5 miles and park near the baseball field, the center of town. For GPS use 1 Old Rancheria Rd Nicasio, the address for the Rancho Nicasio Restaurant.

Meet at the ball field in Nicasio.



Forest Health and Wildfire Resistance

continued from page 1

The PWP does not reconcile how the forest health activities that would potentially remove large areas of native vegetation could be implemented and at the same time comply with the Coastal Act.

CalVTP Standard 7.a. mandates that forest health projects “proactively restore and enhance ecosystems, restore and enhance vegetative cover to a threshold that reflects the appropriate fire intervals, maintain vegetation cover and composition to avoid habitat conversion, and provide for an appropriate mosaic of habitats.” To demonstrate that the project will accomplish these requirements, there should first be a description of these habitats and the wildlife within the habitats and an assessment of how the project will affect, protect, and restore these habitats. How will the mosaic of habitats be protected, and what is the appropriate mosaic? Will it be designated as each project is implemented or only in the overall project, or preferably both? The Plan won’t benefit the forest ecosystem if it destroys all or most of the current understory, shrub, and young trees, leaving inadequate habitat to sustain ground dwelling and other wildlife species.

Finally, in addition to expressing the concerns discussed above in our comment letter, we expressed concern that the PWP public hearing did not comply with the Coastal Act requirements for maximum access and community involvement. It was held at the Marconi Conference Center in Marshall, a relatively remote location accessible only by private vehicle. And, despite the availability of internet connection, no remote public participation (e.g., Zoom) was offered.

WHAT YOU CAN DO:

CSP has assured there will be other opportunities for environmental review and public input. So, be alert for the Coastal Commission hearing on the PWP. It will be the next opportunity to learn about and comment on the PWP for Tomales Bay State Park.

CSP also has indicated it will hold additional meetings. Check CSP website for Tomales Bay State Park, www.parks.ca.gov/?page_id=31231.

STATE ROUTE 37 FEIR RELEASED

Caltrans has released the Final Environmental Impact Report (FEIR) for the State Route 37 (SR 37) Flood Reduction Project, which is intended to address the inundation of SR 37 and the resulting traffic congestion. The

project consists of raising the bridge 35 feet over Novato Creek as a causeway. FEIRs consist of responses to questions and issues raised in comments on Draft EIRs. The responses to issues raised by MAS are as follows:

- The existing SR 37 roadway will be removed but not until Phase 2, which is not expected to take place for 20 years.
- The new causeway will not extend the entire length; the western and eastern ends of the existing SR 37 roadway, connecting to Hwy. 101 and Atherton Avenue, will not be removed and replaced with a causeway until Phase 2.
- The details on mitigation for impacts to wetlands, including location, habitat types, and minimum acreage, would be determined in discussions with resource agencies and could include purchasing credits in a mitigation bank. Caltrans will explore opportunities in or near the project corridor, including the “possibility of contributing to the Novato Creek Baylands Strategy.”
- Local access roads north of SR 37 would be extended to maintain access primarily to county facilities. The reason given is that “transition bridges would preclude access from existing access locations due to changes in grade.”
- Removing the double-box culvert on Simmons Slough and opening the creek channel would not take place until Phase 2.
- No information was available at this time about the location of the many pilings that would be installed for the new road.
- The wider configuration of the new bridge would directly shade 0.50 acres of tidal salt marsh; however, light would reach the wetlands most of the day, so this impact is found to be insignificant.
- Caltrans would review the need for a 12-foot-wide shoulder lane in each direction on the new bridge during the design period for Phase 2. We questioned the need for a shoulder this wide.
- Caltrans acknowledges that the time between the implementation of Phase 1 and Phase 2 would be 20 years. Caltrans would reevaluate biological and traffic conditions and determine the need for a Subsequent Environmental Impact Report during the design phase for Phase 2.
- Regarding the possibility that Phase 2 will never happen considering the many other needs in the corridor, the response is that “Caltrans is partnering with other agencies to pursue funding for Phase 2.”

Although raising and expanding the Novato Creek bridge as a causeway should eliminate flooding and the causeway will set the stage for future expansion from Hwy. 101 to Atherton

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	1 acre
11. Triangle Marsh	31 acres
12. Arroyo Corte Madera del Presidio	2 acres
13. Cal Park	<1 acre
14. Corte Madera Ecological Reserve Expansion Site	5.2 acres

Avenue, questions and concerns remain. We are concerned that Caltrans is not removing the existing SR 37 roadway pavement or the section over Simmons Slough, and is constructing the new local access roads north of SR 37. These structures would interfere with, or block, the natural flow of water altogether and inhibit the restoration of baylands. The vagueness of the wetland mitigation is also a concern. MAS is a

partner in the Novato Creek Baylands Strategy, so we may be able to have some input into the mitigation. However, there is no specific commitment to mitigating within the Novato Creek baylands, or to restoring adequate acreage or habitat type. We're also concerned, because there are many other expensive roadway improvements needed along SR 37 corridor, that Phase 2 may never take place.

How You Can Support the Marin Breeding Bird Atlas!

The piercing screams of Red-tailed Hawks and Red-Shouldered Hawks, and the captivating duets of Great-horned Owls, can be heard throughout Marin as courtship, nest building, and incubating is initiated by our resident raptors and owls. It takes a long time (and lots of rodents) to raise a young hawk (or owl), so while our neotropical migrants are still thousands of miles south of here, our resident hawks and owls are laboring to produce and raise offspring.

And while the Marin County Breeding Bird Atlas season isn't officially underway until April 15, each of you is encouraged to submit your breeding observations of our early-nesting hawks, eagles, owls, and hummingbirds, starting now, using the Incidental Breeding Observations Webform on the right side of the Atlas webpage (<https://marinaudubon.org/birds/marin-county-breeding-bird-atlas/>).

The webform allows all observers – even those not otherwise involved in the Atlas – to submit a variety of sightings that can confirm breeding or indicate a “high probability” of breeding. Examples of behaviors that indicate potential or definitive breeding include displays, pair bonding (e.g., for duetting owls), and copulation; and nest building or carrying nest material; and observations of an adult on (or flying onto/off of) a nest.

An incidental breeding observation is the primary way for members of the public to contribute sightings to the Atlas if you are not already participating as a block leader or observer. While we are emphasizing “early breeders” this month, we hope you will submit observations of breeding birds throughout the year.

We are now also accepting observations of territorially calling owls and/or any owls you simply see (or hear) on your evening strolls, even if they don't indicate breeding per se. All owl observations are reviewed based on species, date, and details of observation to determine if the observation will be used in the Atlas, or if they may represent nonbreeders (winterers or migrants). Per Atlas and local guidelines: please do not use playback or mimicry to elicit a reaction.

Your dedication to the Atlas, and the financial support from many of you, has gotten us where we are today. As we begin our crucial 4th Atlas season and what will likely be the last full year of data collection, we are also reaching out for your support in another way.

Our 2024 fundraising goals support:

- Continued time for our part-time project manager to review and manage data and to work with volunteers entering data;
- Ongoing updates to our Data Explorer application which includes species maps, species lists and up-to-date breeding bird data;
- Incorporation of data from multiple partner institutions including owl surveys and point count survey data.

We hope you'll help us achieve our 2024 goals! Please visit the Atlas webpage where you can make a tax-deductible donation today through PayPal. Checks are welcome too! Please make your check out to the “Breeding Bird Atlas” and send to:

Marin County Breeding Bird Atlas
c/o Daphne Hatch
67 Pinheiro Circle
Novato CA 94945

Please contact Daphne at daphnehatch@gmail.com if you are considering a donation through a donor-advised fund.

We are grateful for our generous donors and for their support – which includes contributions of breeding observations and the other ways many of you are involved in the Atlas.

Daphne Hatch, Diana Humple, and Liz Lewis, MCBBA2 Project Coordinators

Interested in MAS Board?

At this critical time when climate change and human activities are threaten habitat, there is much to be done. Be a part of MAS addressing ongoing challenges to the natural world starts. To learn more about the MAS Board contact: Ellena Ochoa, volunteercordinator@marinaudubon.org; Mike Anderson, 415/990-9784; or Doug Waterman at 415/506-4675.

THANK YOU, DONORS

Harold Anderson, Tim & Annina Arthur, Mariah Baird, Tom & Sherry Baty, Anne Baxter, Timothy Behr, Andria Benner, Madeline Boshart, Brian Buchanan, Patricia Campbell, Jan Capper, William Carney, Nima Catani, Richard Cimino, James Cleaves, Jill & Collin Cochrane, Michael Concannon, Lois Connely, Nona Dennis, Mary & Neil Erickson, Mary Evans, The Klein-Donahoe Family Fund, The McMurtry Family Fund, Phoebe Fielding, Stephen Fellman, Charles Gardiner, Donald German, Pauline Grant, Jean Greenbaum, Shannon Griffin, M.J. Groper, Karen Halvorsen, Judith Hanks, Shelia Hershon, Alice Hofer, Sarah Hoffman, Teri Hollowell, Roger Hooper, Kurt & Nancy Kademacher, Maggie Keil, Jeffrey Kimball, Richard Lang, Laurie Langer, Ron & Sondra Lanstein, William Lenarz, Elizabeth Lewis, Claudia Lewis, Susan Lindsay, Mark Lipman & Helen Cohen, Carolyn Longstreth, Theani Louskos-Callahan, Bonita Marmor, Vivian Mazur, Donald McLaurin, Prem McMurdo, William Mentzer, Dennis Mulqueeney, Joan Murphy, Santa Venetia Neighborhood Association, Martha Nelson, J. Morrow Otis, Thomas Peacock, E. Lynn Perry, Stephen Piatey, Patricia Pigman, Tony Pinsky, Bob Portnoy, Flinn Moore Rauck, Margo Reis, Jeanne Remy, Connie Riley, Paula Riley, Doug & Margi Roberts, Mary & Steve Ross, George Roth, Katherine Rousseau, Sallie Anne Rowe, Carla Ruff, Barbara & Jay Salzman, Charlotte Scherman, Peter Schmid, Anita Settle, Ann Shaw, Ann Sheldon & Niccolo Caldararo, Gwendolyn Stanhope, Stephen & Britt Thai, Ruth Thompson, Doug & Joyce Waterman, Nancy Willet, David Wimpfheimer, Kristin Womack, Karen Young

HONORING

Joan Turner by Susan Cumming

IN MEMORIAM

Rudi & Sonja Schmid by Isabelle Franzen & Peter Schmid
Will Hynes by John Crawford

WELCOME, NEW MEMBERS

Tina Huie, David Keatley, Mary V. King, Karin Knight, Lenore Lasher, Heidi Linsmayer, Howard Luria, Andrew Mastropietro, Ann Meisinger, Dennis Mulqueeney, Kathryn Peisert, Linda Perrella, Alex Pierce, Jim Ray, Kenneth Rightmier, Victoria Silverman, Eleni Sotos, Vicki Sutton-Beattie, Gail S. Woolaway, Patricia Yee

Habitat Stewardship

HABITAT STEWARDSHIP PROGRAM

It's time to remove invasive annual weeds before they bloom, and Italian thistle is one whose time has come. Let's pull it or cut it off now and prevent it from dominating patches in our marsh restoration sites. Mustard is the other weed to stop before it gets out of hand. The wet soil makes the work easier, but it is never really difficult work; it just takes many hands. Bring a friend!

Join us on a workday and make a difference. Earn community service hours. Help our native plants reclaim their home. It is an opportunity to learn more about a native habitat of your county and be a part of making it better. Rain cancels our workdays.

Volunteer Workdays

Triangle Marsh, East Corte Madera:

First Saturdays: March 2, April 6

Meet at 10 AM on Paradise Drive between the Ring Mountain Phyllis Ellman trailhead and the Montessori School.

Corte Madera Ecological Reserve:

Second Saturdays: March 9, April 13

Meet at the end of Industrial Way near Trader Joe's in Greenbrae.

For up-to-date information, 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

Debbie Ablin, Annette Anzalone, Jim and Lily Fox, Bob Hinz, Martha Jarocki, Lowell Sykes, YouthFirst

SLOUGH NAME CHANGE

Last year Marin County Supervisors changed the name of the former Black John Slough to John Pinkston Slough. After 150 years the name was changed, as a result of a petition drive by Marin County Park Ranger Michael Warner, to honor this pioneer black settler.

MONARCH BUTTERFLY UPDATE

The Xerces Society for Invertebrate Conservation has released results of the 27th annual Western Monarch Count. Scientists and volunteers counted a total of 233,394 butterflies at 256 overwintering sites. The count is slightly lower than last year's total of over 330,000 butterflies, and remains at just 5% of their population numbers in the 1980s, when low millions were common.

YEAR 15 MONITORING REPORTS BAHIA RESTORATION ON TRACK

2023 was the 15th anniversary of the Bahia restoration and the year of the last required monitoring to document the evolution of the marsh. There have been four previous monitorings: 2009, 2012, 2015, and 2018. All have shown positive progress toward a mature tidal marsh, and the current monitoring demonstrates that that progress continues. The evolution of a restored marsh to mature habitat takes years, longer with large sites such as this one. Monitoring plans measure specific aspects (tidal range, sedimentation, channel size, and vegetation coverage), as well as evaluate compliance with performance standards toward the goal of restoring "...successional brackish tidal marsh with channel patterns and transitional habitat structure similar to those of adjacent, historic marshes..."

Through a combination of earthwork, excavating, grading, and habitat enhancements, Bahia was converted to a mix of tidal marsh, seasonal wetland, and upland habitat. Sections are at different stages of evolution because the restoration was comprised of four subdivided baylands (East Bahia, Mahoney Spur, Central Bahia, and West Bahia), each with different pre-construction ground surface elevations, fill placement, differential subsidence, design plans, and different post-construction elevations. And the restoration took place in two phases: (1) Central Bahia, the approximately 150-acre diked marsh at the base of Bahia Drive, Mahoney Spur, a smaller diked bayland to the north, and three peninsulas (West, Central and East) which were created by filling tidal marsh to create building pads for houses; and (2) West Bahia, an approximately 200-acre diked bayland that was opened to tidal action by breaching levees three years later in order to slow the widening of John Pinkston Slough (formerly called Black John Slough [see side bar on left]) to the north. To restore tidal marsh, portions of Central Bahia and Mahoney Spur were graded to lower elevations suitable for tidal marsh to restore naturally, to create a network of tidal channels, and the levees were breached.

Since construction, sediment has deposited naturally on the mudflats of Central Bahia and Mahoney Spur, raising the marsh elevations. The sites are now largely mid-marsh, and portions of West Bahia are now low marsh. Cordgrass has colonized new locations within the mudflat in more continuous bands, and pickleweed has continued to establish along the Central Bahia marsh plain and the higher marsh plain areas of West Bahia. Sedimentation

and vegetation establishment are expected to continue, changing the interior mudflats to form a continuous marsh plain.

Aerial photographs show that the network of channels in the interior mudflat of Central Bahia has become more complex. Site breaches and interior channels have been stable since 2018. This was expected, as the site has had nearly full tide range since 2015, and the interior mudflats have continually aggraded (built up the surface level through deposition of sediment). Site aggradation has led to less tidal prism moving through the channels and, in turn, lower tidal velocities and reduced erosive force. Central Bahia is approaching mature marsh plain vegetation in many areas, although a bit slower than Mahoney Spur. Together, Central Bahia and Mahoney Spur have 53 percent marsh vegetation.

No internal earthwork was done in West Bahia because the levee between Central and West Bahia breached naturally, resulting in inundation of the site. Because West Bahia started at a lower elevation and is farther from the primary source of tidal water; it has 18 percent vegetative cover.

In East Bahia, the tidal portions of the East and West Peninsulas were created by excavating to lower fill and create channels. They started out at mature marsh plain elevations and were quickly colonized with native marsh vegetation and have had 100 percent vegetative cover since 2015. However, channel development within these peninsulas is limited, and many of the excavated channels have been colonized with low-marsh vegetation. Tidal prism is expected to increase as the sea level rises. MAS has been removing invasive plants and planting native plants on the East, Central and West Peninsulas with the goal of establishing native oak savanna wet meadow on the Central Peninsula and ecotone habitat adjacent to the tidal marsh on the West and East Peninsulas. Native vegetation has increased, and non-native vegetation has decreased in each monitoring year.

Most of the Monitoring Plan performance standards were met by 2015 and were not monitored in 2023:

- Marsh plain elevations increased through sedimentation throughout the site.
- Hydrology: Tidal range increased in Pinkston Slough, approaching that in lower Petaluma River.
- Morphology: Channel size increased through tidal scour after construction of breaches in Phases 1 and 2.
- Restored bayland tidal regimes within Mahoney Spur and the Central Bahia

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Long-term Shorebird Study of Tomales Bay

By Roger Harris

Long-term bird studies – such as the Pt. Reyes, Cheep Thrills, and Southern Marin Christmas Bird Counts that MAS sponsors – are invaluable conservation tools for assessing changing status and distributions. The scientists at Audubon Canyon Ranch have recently published a 30-year analysis of wintering shorebirds on Tomales Bay (*Ornithological Applications*, 2021, 123:1–19).

The lead author is Nils Warnock, who is now the director of conservation science at Audubon Canyon Ranch. A distinguished shorebird scientist, his PhD is from UC Davis and San Diego State. He had been the co-director of the wetlands division at Point Blue, then head of Audubon Alaska.

Warnock and his colleagues counted over 1.2 million shorebirds of 31 species. Dunlin numbers accounted for some 40% of the 30-year total. The next most abundant species were Least and Western sandpipers and Marbled Godwit.

They reported overall shorebird numbers declining with the greatest declines in the initial years of their study. Drilling deeper into the data, we see that the first few years of the study had anomalously high numbers, disproportionately influencing the reported 66% decline.

Counts in those first few years tallied high numbers of individuals, while numbers in the remaining years flattened off at a lower level. Dunlin, in particular, in the first three years accounted for around half the birds counted. Referring to the initially high numbers of Dunlin in those first years, the study concluded that “most of the decline” observed was due to that species along with Western Sandpipers, which also initially had high numbers.

In the discussion section of the paper, the authors explained that Dunlin are a far northern breeder. They hypothesized that Dunlin are now wintering further north due to

a warming climate. With fewer freezing days and less ice covering foraging habitat in the far north, Dunlin may not need to travel so far south to find suitable winter foraging habitat.

If the most recent 27 years of the 30-year survey were analyzed, the picture is one of fairly stable shorebird numbers with a slight downward trend.

The last reported year of the survey had very low numbers, influencing the trend. One of the study's co-authors, Scott Jennings (pers. comm.), explained. Fewer surveys were conducted in 2018 due to weather, accounting for the irregularly low count that last year. Subsequent surveys, he reported, continue to suggest negative trends. But the declines may be leveling off.

The authors suggested that Dunlin and Western Sandpiper may be negatively impacted by the oyster farms in Tomales Bay. Otherwise, they found no significant change in habitat over the 30-year period except for the positive influence of a wetland restoration in the south end of the bay.

Increases of Least Sandpipers and probably Greater Yellowlegs were associated at least partly with the restoration of the Giacomini Wetlands. However, they found the positive effect of the 2008 restoration, which returned tidal flow to the area, only had a temporary positive effect on shorebird numbers.

The study also counted raptors (birds of prey). A secondary effect of the Giacomini restoration was an increase of raptors, which they found had mixed impacts on shorebird numbers.

In addition to global warming, which might be changing the wintering distribution of shorebirds on a continental scale, the authors also warned about future sea-level rise negatively impacting wintering shorebird habitat at Tomales Bay.

Southern Marin Christmas Bird Count, 49th year

By Bob Hinz

On Saturday December 30 one hundred and one observers found 55,495 birds of 168 species on Southern Marin's 49th Christmas Bird Count. Compared to the 1975-2000 medians of 91,400 birds and 183 species, this year's results were significantly lower, by 39% and 8%, respectively. The number of birds has been on a downtrend and this year was below the 2001-2023 median number of birds (66,000). The number of species was second lowest on record; only last year's figure in steady rain was lower. Many factors affect these parameters including the numbers of eyes and groups (parties) in the field and having a boat on the ocean.

Two rare birds demonstrate migratory birds' loyalty to a wintering site: northern California's only **Yellow-crowned Night-Heron** came back to Sausalito, and an **Eastern Phoebe**, probably last year's bird, returned to the headlands. Other rare birds included two **Cassin's Vireos**, an **Empidonax flycatcher** and a count week first ever **Green-tailed Towhee**.

The number of **Brown Pelicans** (2,754) hit an all-time record after just four in 2017, and seven **Bald Eagles** was also a record high.

See you next time, Saturday, December 28, 2024.

Junior Birdwatchers

Our Junior Birdwatchers program is ready to go! Last year, we had fun experiences with several elementary classrooms in Marin County and we hope our members will talk to their local school teachers about adding this experience for their students this spring. For information, contact Lelia Lanctot, Leliaannlanctot@gmail.com.

Bahia Restoration

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baylands evolved to be similar to that of Pinkston Slough (i.e. increased to a full tide range as the slough enlarged).

Performance Standard Progress for Year 15:

- Seasonal wetlands have at least 80 percent native seasonal wetland vegetation. The five areas of seasonal wetland have achieved, or are close to achieving, the required standard. One seasonal wetland is still largely unvegetated, possibly because of the long inundation period.

- Aerial photography, done on August 31, 2023, documented the progress of the marsh. The photos and vegetation mapping documented the prevalence of low- and mid-marsh marsh vegetation within all parcels and progress towards typical marsh habitat structure.

As stated by Environmental Science Associates (ESA), the authors of the report, the Project “has made consistent, positive progress towards meeting the performance criteria laid out by the monitoring requirements. The different tidal restoration areas have evolved at varying rates in

terms of sedimentation and vegetation establishment, yet all are on track to reach fully mature status. The site is in a healthy state and will continue to evolve in the years to come.”

CORTE MADERA

Unfortunately, our interpretive sign at the Corte Madera restoration has been vandalized. Someone sprayed the sign with black spray paint. We are having trouble finding a way to remove it, assuming it can be removed.



The Rail

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9:30 AM *With Rich Cimino*
- April 17 **Field Trip:** Rodeo Lagoon
7:30 AM *With William Legge and David Wiechers*

Check website for updates and details

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We invite you to become a Chapter-Supporting member of Marin Audubon Society (MAS) to support our important habitat protection and restoration work, conservation advocacy, our full calendar of birding field trips and speakers and our newsletter, *The Rail*. Marin Audubon is a chapter of National Audubon (NAS). However, becoming a **Chapter-Supporting Member** of MAS is separate and distinct from a membership in NAS. While MAS works with NAS on issues of mutual concern, we are a separate non-profit Section 501(c)(3) all-volunteer organization. Marin-based NAS members do receive this MAS newsletter, *The Rail*, however we encourage all NAS members to also become Chapter-Supporting members of MAS to support our local work. Very little of our funding comes from NAS, and we rely on our MAS Chapter-Supporting members and donors to help us fund our land acquisitions, restorations, habitat protection, conservation advocacy, this newsletter and our local programs.

If you're not already a Chapter-Supporting member, we urge you to join MAS and urge your friends, neighbors and relatives to join us, too.

You can join MAS or make a donation on our website using your credit card or PayPal by going to www.marinaudubon.org. Alternatively, you can join by filling out this form and sending us your payment by mail.

ALTERNATIVELY, IF YOU ARE LOOKING TO JOIN NATIONAL AUDUBON FOR THE FIRST TIME.

MAS will receive 100% of your initial membership if you enter **MAS's chapter code C04** on your application. To join, go to www.audubon.org/join.

The best option for the birds: Join MAS **and** NAS.

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