



# Tide Rising

Winter 2021

Volume II, Issue 2



Publisher & Editor: [San Francisco Bay Wildlife Society \(SFBWS\)](#).

SFBWS is a not-for-profit Friends Group for the San Francisco Bay NWR Complex, working along with many Refuge volunteers to keep our public lands available for you and wildlife.

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## Reflections & Restoration

### In this issue:

- **Reflections** from a new Wildlife Refuge Specialist supporting the Farallones, our island Refuge, west of the Golden Gate.
- Read about **restoration** efforts at Don Edwards San Francisco Bay National Wildlife Refuge.
- SFBWS Staff members provide information about restoration efforts at Antioch Dunes and new ways to experience vernal pools and birds.
- Friends groups columns focus on their support of restoration efforts on Refuges as well as reflections of how Friends groups help Refuges they support. Our Acting Complex Manager provides **reflections** on 2020: a must read.
- Based on readers feedback, you will see a new format for the email version of the newsletter. A short synopsis will be in the email with a photo or two, and have an Acrobat .pdf file link with the full story. This should help you read the whole newsletter in brief, and dive into stories that interest you more easily.

Enjoy the San Francisco Bay Wildlife Society **Winter** Newsletter!

### San Francisco Bay Wildlife Society

*Editors:* Ceal Craig, PhD; Renee Fitzsimons.

*Contributors:* Aidona Kakouros, Brett Stormoen, Ceal Craig, Hope Presley, Mary Deschene, Renee Fitzsimons (SFBWS). Alyssa Clevestine (USFWS), Amberish (volunteer photographer), Francesca Demgen (Friends of San Pablo Bay), Matt Brown (USFWS).

**Masthead: Marsh at sunset (Renee Fitzsimons)**

## Current Refuge Complex Status

*Refuge Status as of January 31, 2021*

### Masks required on all Federal Property

**Don Edwards San Francisco Bay (DESF) NWR:** All public programs and volunteer events postponed.

- If you have a scheduled group program, contact staff person you made the reservation with to discuss options.
- Visitor Center in Fremont & Environmental Education Center in Alviso are currently closed. Check back for status changes. If you have questions or concerns regarding the EEC activities and events, please [contact us](#)
- The DESFB NWR Refuge trails remain open from sunrise to sunset. Stay healthy, and take care.

### Other National Wildlife Refuges in the Complex:

- During the current public health emergency, whenever possible, outdoor recreation sites at Refuges will remain open to the public. For local conditions review information on Refuge websites (for links see [Explore From Home](#) page) and call ahead.
- If visiting a Refuge, please ensure public health and safety by following guidance from the CDC and state and local public health authorities. You can do this by maintaining social distancing, avoiding overcrowding, and using good hygiene practices.

## Farallon Islands National Wildlife Refuge ([More info](#))

Established in 1909 by President Theodore Roosevelt as a preserve for breeding birds.  
and part of the Golden Gate Biosphere Reserve.

### REFLECTIONS: Joining the Farallones Team

by Alyssa Clevestine, Wildlife Refuge Specialist, Farallon Islands National Wildlife Refuge, U.S. Fish and Wildlife Service

As the new Wildlife Refuge Specialist for the Farallon Islands National Wildlife Refuge, I took my first trip in November 2020 to start getting familiarized with the island, its infrastructure, and the processes to maintain the numerous species and resources of the 211-acre refuge.

Arriving via schooner, we were greeted first by a young gray whale (*Eschrichtius robustus*) swimming below the boat, then almost immediately afterward the first mate spotted the beginning of a white shark (*Carcharodon carcharias*) attack on a northern elephant seal (*Mirounga angustirostris*), one of five pinniped (seals and sea lions) species inhabiting the Farallones.



Leaving San Francisco Bay for the Farallon Islands.  
(Gerry McChesney)

The activity did not stop at the water's edge – as we walked the island surveying the native and non-native plants nearby, I saw dozens of invasive house mice (*Mus musculus*). Despite being warned of the high abundance of these detrimental mice, particularly in the summer and fall months, it was truly astonishing to see just how many there were scurrying between plants and seabird burrows. Several also made their way into the Coast Guard House, where USFWS staff and contractors stay while completing work on the island. These intruders were obviously unwelcome and caught using snap-traps to keep them from causing further harm to the house and from potentially contaminating our food. One of the highest priorities of refuge management is the eradication of these invasive mice from the Farallones to improve ecosystem health and native species conservation.

In addition to participating in the eradication planning efforts, other projects for me were:

- Coordinating and assisting in a large helicopter operation with the California Army National Guard to replace a 30-kW generator critical for the island's power system,
- Updating the refuge operations manual and safety plan,
- Conducting invasive plant control.
- Leading monthly safety meetings and providing support for the continued safe operations of the refuge, and
- Learning from Point Blue Conservation Science staff biologists about their long-term monitoring efforts.

I look forward to continuing to support these and other projects to ensure successful refuge management and ongoing scientific research at the Farallones and for the San Francisco Bay National Wildlife Refuge Complex, as a whole.



Maintop (West End) Island at sunset on the Farallon Islands National Wildlife Refuge  
(Alyssa Clevestine)

## Don Edwards San Francisco Bay National Wildlife Refuge ([More Info](#))

Formed in 1972, these 30,000 acres are an oasis for millions of migratory birds & endangered species

### RESTORATION: 2020 Levee Deferred Maintenance

by Matt Brown, USFWS Refuge Manager, Don Edwards San Francisco Bay NWR

Thanks to the hard work of, and advocacy from, numerous USFWS partners (including the incredible support of the San Francisco Bay Wildlife Society) in 2020, the Don Edwards San Francisco Bay National Wildlife Refuge (Refuge) was able to begin work on a multi-year \$18 million levee maintenance program.

A detailed analysis of the Refuge's extensive levee system showed that, in addition to the levee areas experiencing noticeable erosion or weakening, large parts of the system were threatened by rising sea-levels. Refuge staff worked with engineers, biologists, visitor service advocates and our partners to come up with a construction plan that would minimize costs and maximize the long-term benefits of our maintenance actions.

restoration efforts the 3-5 years of levee protection they need to complete their pre-breach work..

The construction season at Don Edwards San Francisco Bay NWR is notoriously short. To avoid impacts to breeding plovers and rails, work is generally limited to a September - January timeframe. Safely rebuilding miles of levee, moving thousands of tons of rock and soil, and replacing/repairing/removing 6 different water control structures in 5-month window unfortunately means that there are some impacts to public access. The Refuge works diligently to minimize those impacts and appreciates the support of the San Francisco Bay Wildlife Society in notifying the public about trail closures.



Priority Maintenance Areas (USFWS)



Internal levee rehabilitation in Alviso (USFWS)



New levee armoring along the Bay in Menlo Park (USFWS)

In several areas (specifically the levees in front of Moffett Field, and certain sections of the Alviso levee complex), the Refuge is armoring and raising the overall height of the levees to better withstand higher seas and increased storm surges. These efforts are designed to allow Refuge staff to manage ponds behind the levees to achieve biological and recreational goals over the next 25 years. In some cases, the work is also designed to facilitate future marsh restoration projects by adding protection for critical infrastructure.

In other areas (levees in Menlo Park and Mountain View), the work is being planned with a shorter timeframe in mind. As multi-agency planning efforts are already underway in both of these areas for the eventual breaching of these levees in order to restore marsh habitat, the Refuge has scaled back the maintenance work being done, with a goal of giving the

With the challenges that came with 2020, due to the hard work of our partners and contractors, we ended up having a very safe and productive construction year. Work will continue on Refuge funded projects for the next few years and will ultimately result in a levee system and water control infrastructure that is right-sized for Refuge purposes, and able to withstand the impacts of climate change.

# People of Note

## People with Challenges and Disabilities

by Ceal Craig, Newsletter Editor

In April 2018, at a California State Coastal Conservancy ADA Focus Group, I met accessibility activists sharing perspectives from open space trusts, county parks, Refuges, and such. From the Summer 2018 Tideline about the Focus Group:

“We shared challenges and opportunities for individuals who might need extra support to access public lands, commonly referred to as ADA accommodations. One challenge is effectively communicating information about what already exists. For example, this website is filled with helpful information for those in wheelchairs (and others who are mobility challenged) who went to access the California coast including our Bay Area lands. <http://www.wheelingcalcoast.org/>”

One of the people I met there was Bob Coomber: known as “Wheelchair Bob” for his intrepid adventures on trails. He [crossed](#) about 22 miles the almost 12,000-foot Kearsarge Pass in the Sierra Nevada, near Mt. Whitney. That day he shared photos and stories about his inspiring efforts to take himself and his wheelchair over trails and mountains. [4 Wheel Bob](#) is a documentary about his efforts.

Bob also shares what he learns with others who have mobility impairments; he provided several informative links and I have used them many times over the past years. I use a rolling walker (“Rowdy”) when I hit the trails where I used to walk easily over or ride a bicycle. Now, knowing what trails are accessible, knowing what the gradients and surfaces are, makes a difference. A Wheelchair’s Rider’s Guide to the California Coast helps: Read about the [accessible trails on the Don Edwards San Francisco Bay NWR](#).

Federal lands are working to make those lands more and more accessible. Consider the work done by Glacier National Park, Denali National Park, the Bureau of Land Management, and the Golden Gate National Recreation Area [in this article](#) from 2018. National Wildlife Refuges in other parts of the country work with hunters who use wheelchairs or have other limitations.



Ceal on National Refuge Day in June 2018 at Humboldt Bay National Wildlife Refuge, seated on Rowdy  
(Ceal Craig)

Mobility challenges are only one challenge people face! Not all disabilities are obvious either. At the Refuge and Society, we ask: **How can we be more inclusive in our public activities and in our relationships with the community?** The Society hopes to earn a grant to access and improve accessibility on the Refuge Complex (we didn’t get a grant on our first try, but we will try again!)

Recently, I found seven steps we could all take. “[Simple things count](#)” describes “ways to be more inclusive of people with disabilities.”:

[Be your usual self](#) (Emily Ladau, Disability Rights Activist). Treating people the same, talking to everyone just like you would your family or friends is important.

[Make sure your work is accessible](#) (Angela Hooker, Senior Accessibility Program Manager, Microsoft) describes how to ensure content is accessible.

[Disability is a strength](#) (Judy Heumann, International Disability Rights Advocate). Heumann has been advocating for people who are differently abled since the 1960s. Learn from her journey.

[Follow the principles of inclusive design](#) (John Porter, Senior UX Designer, Microsoft). Back when I was managing manufacturing plants and designing manufacturing workflows, I learned this: solve for the obstacles and barriers for people with disabilities and the process will work better for all.

[Accept each person as a human first](#) (Tom Harkin, retired United State Senator): he was a sponsor for the Americans with Disabilities Act (1990): “The ADA is a civil rights law that prohibits discrimination against individuals with disabilities in all areas of public life, including jobs, schools, transportation, and all public and private places that are open to the general public. The purpose of the law is to make sure that people with disabilities have the same rights and opportunities as everyone else.” ([ADA National Network](#))

[Learn the appropriate etiquette](#) (Leah Katz, Manager, CEO Communications, Microsoft). Match etiquette to the situation: simple tips in this short video!

[Follow our lead](#) (Jessica Rafuse, Senior Accessibility Program Manager, Microsoft): learn from a woman who has led the way a large part of her life.

# Environmental Science on the Refuge

## Vernal Pools: New Trail for Birders

by Aidona Kakouros, San Francisco Bay Wildlife Society Botanist/Ecologist

Meet Harris's sparrow, an unusual observation in California and the recent attraction of the new expansion of the Pacific Commons Linear Park at Fremont. The new stretch of the trail runs along the fence line of the Warm Springs Unit of Don Edwards San Francisco Bay National Wildlife Refuge. Warm Springs Unit is a vernal pools grassland, home to several federally listed species and plethora of rare and unusual species. It is the last remaining lowland vernal pool site in the Region, a transitional habitat connecting the bay with the foothills.

Warm Springs Unit encompasses the once called Pacific Common Preserve, where vernal pool restoration took place as a mitigation for the Pacific Commons development. The Unit is closed to the public because of the fragility of the ecosystem and the demanding management it requires to restore ecosystem functions. However, the new trail expansion gives the opportunity to visitors to catch a glimpse of the rich fauna and flora present at Warm Springs Unit.

In the few months since it opened, it has attracted a lot of bird and photography enthusiasts. No wonder why; even during the driest months of a scorching dry year, wildlife sightings here abound! Bald Eagle sightings are common as well as these of Golden Eagle, Ferruginous Hawk, Northern Harrier, and if you are lucky, wintering Burrowing Owls. The unit is habitat to Loggerhead Shrike and Western Meadowlark, two species commonly spotted from the trail.

Although the type of habitat in the Unit is not the typical one of Harris's sparrow, the combination of the grassland vegetation and the landscaped border of the trail may have attracted this species. At Warm Springs Unit, from the New World sparrows we commonly see Savannah, White-crowned, Golden-crowned, Lincoln's, and Song sparrow. As the rainy season finally started, I anticipate a lot more exciting observations recorded by the users of this new little trail.



Harris's Sparrow  
(Joan Mancini)



## SFBWS Staff & Board of Directors

### Current SFBWS Staff

- Mary Deschene, *Program Administrator*
- Hope Deschene, *Interpretive Specialist & Watershed Watchers Program Coordinator*, funded by Santa Clara Valley Urban Runoff Pollution Prevention Program (SCVURPPP)
- Olivia Poulos, *Watershed Watchers Associate* (SCVURPPP)
- Brett Stormoen, *Biological Science Technician*, Bohannon Foundation Grant
- Aidona Kakouros, *Botanist*, Wildlife Heritage Foundation Grant for Warm Springs Project

### Board of Directors

Renee Fitzsimons, President  
Neil Butani, Vice- President  
Chris Kitting, PhD, Secretary  
Cecilia (Ceal) D. Craig, PhD, Treasurer  
**OPEN** Director positions: 5

(all BOD members & officers are volunteers)

# Environmental Science on the Refuge

## Photography Corner



Lea Bavaro provided us a great shot of a Mockingbird who just caught a praying mantis. Enjoy and thanks Lea!

*Below:* from Ceal's archives (March 2011) two photos of late winter images from the Environmental Education Center in Alviso (San Jose): we hope to see these bright flowers very soon this year!

Also two photos from a local photographer. Unfortunately the only info we have in our files for the photographer's name is Ambarish. Hopefully next issues, we'll have the full name.



Avocets in breeding plumage  
(winter)  
(Ceal Craig 2011)



Walking on the Refuge (2018)  
(Ambarish)

Newark Slough at King tide  
(Ambarish)

Walking on the Refuge (2018)  
(Ambarish)



# Environmental Science on the Refuge

## RESTORATION: Antioch Dunes

by Brett Stormoen, Biologist Technician, San Francisco Bay Wildlife Society  
with help from Susan Euing (USFWS)

The endangered Lange's Metalmark Butterfly (*Apodemia mormo langei*) (LMB) is endemic to the Antioch Dunes National Wildlife Refuge, existing only within its boundaries. It uses just one single plant species as its host plant where it lays its eggs and spends its entire larval stage feeding on foliage until it pupates and emerges as an adult butterfly.



A female Lange's Metalmark Butterfly basks upon a buckwheat stem. (Susan Euing, USFWS)

Antioch Dunes Buckwheat (*Eriogonum nudum var. psychicola*) is a perennial variety that, like the butterfly, is unique to the Antioch Dune National Wildlife Refuge. Long, naked gray-green stems erupt in showy clusters of delicate white flowers that bloom from July through October. The flowers bustle with a diversity of nectaring bees, butterflies, and pollinating flies.



Lange's Metalmark Butterfly nectaring on buckwheat flower. Leaves visible, plant surrounded by thatch from annual grasses. (Susan Euing, USFWS)

This buckwheat species naturally recruits by dropping its tiny seeds into nearby mobile sand. Invasive annual grasses hinder its ability to germinate by stabilizing dune soils and competing for space, light, and moisture. They have been threatening the existence of other native dune plants since their introduction with agriculture in the 1850s. ADNWR is also home to the endangered Antioch Dunes Evening Primrose (*Oenothera deltoides var. howellii*) and the Contra Costa Wallflower (*Erysimum capitatum var. angustatum*) among other native forbs, including those that LMB and other insects use for nectar. It was the first wildlife refuge to be established to protect an endangered insect (invertebrate).



Healthy buckwheat plants bloom from new dunes created from dredge sand, part of effort to restore dunes on one part of Refuge (Susan Euing, USFWS)

Geologic history here is as unique as its inhabitants. The dune sheet on which the refuge sits is made from sediment carved from the Sierra Nevada over several glacial cycles that was deposited by rivers into the San Francisco Bay throughout the Late Pleistocene age. When sea levels receded way out past the Golden Gate, westerly winds swept up the exposed sand, carrying it east, and over time deposited it along the San Joaquin River, thus forming the dunes.

As part of a habitat enhancement experiment for LMB, USFWS biologists Susan Euing and Louis Terrazas, with the help of two biotechs, Brett Stormoen of San Francisco Bay Wildlife Society and Jerrod Sellers of USFWS, have undergone efforts to grow more self-sustaining patches of Antioch Dunes Buckwheat within the Refuge.



Seed cleaning station for separation of seeds & plant material complete with sieves, bins, & brushes (Brett Stormoen, SFBWS)

We collected buckwheat seeds throughout October of last year and cleaned and bagged them prior to sowing. We cleared selected plots formerly covered in annual grasses and thatch to expose underlying sandy soils. After preparing the plots, we evenly distributed the seeds onto their surfaces in time for winter rains. We hope to slow the invasion of grasses by weeding those plots to give buckwheat seeds a fighting chance to grow. Their germination and growth will be closely monitored over several years to come. Seeds from other native dune plants were also collected and stored for later propagation.

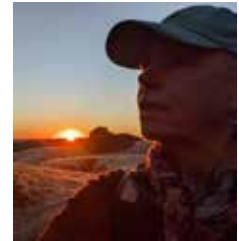
We hope to have many new seedlings establishing soon to revitalize the butterfly population and an important native plant community.

Recently taking on the role of Board President for SFBWS provides me with an opportunity for reflection – past and present. I am honored to know and work with Ceal Craig who has guided the board as its President for over 10 years, four of which I have shared with her as a board member. Ceal’s insight, persistence, humor, patience, and guidance have supported and steered this organization soundly – her willingness to continue to be involved as our Treasurer means her wisdom will stay with us and that I have a trusted mentor. Thank you Ceal for your service and friendship!

My connection to SFBWS started over 20 years ago when I was hired as program lead for “Slow the Flow” - a pilot curriculum development project that became the Living Wetlands program. Learning to truly see and value a salt marsh, tidal slough, waterfowl, shorebirds, brine shrimp, and levees while trying to engage slightly disengaged middle and high school students seemed slightly at odds sometimes. However, when the effort resulted in students having an “ah ha” revelation – toilet flushes can endanger a mouse – I knew there was a successful learning outcome. This early involvement with SFBWS had the added benefit my being trained to give student and public tours at the wastewater treatment plant. It was a great resume addition! I reflect on knowing that the path I chose after “Slow the Flow” afforded me deeper ecological knowledge and professional experiences that I now can contribute to SFBWS in different ways.

Holding up a mirror and looking objectively at ourselves, our nation, and our world puts the reality and significance of reflection right in front of us. We know that conservation and public outreach work will need to navigate ongoing challenges. My hope for 2021 is that SFBWS can continue to pivot in our role to support the Refuge Complex and Fish & Wildlife Service while sustaining the important work our staff does to make that support possible. Your involvement through membership or service can assist us in moving forward with our goals. Thank you for reading this issue of *Tide Rising* to learn about the organization and what we do, and what you can do partner in our efforts. Thank you for joining us and don’t hesitate to reach out!

Renee



### Organization Updates

The Society and USFWS have signed another five-year Friends Partnership Agreement, to continue building on the successes of the prior years.

## Cargill Grant Supports Virtual Learning Adaptation in Local Communities

by Mary Deschene, Grant Writer & Program Administrator, SFBWS

A big **Thank You** to Cargill for their continuing support of Refuge Environmental Education. This year a local Cargill group reached out to their Global Partnership to donate \$23,000 to San Francisco Bay Wildlife Society for Virtual Wildlife and Habitat Education for communities around San Francisco Bay National Wildlife Refuge.

This generous funding supports our Spring virtual learning opportunity development so that children and teachers have virtual resources with staff interaction to continue to connect local communities to the Refuges, learn science, and develop appreciation for the natural world. We strive to make the life-long connections that help people learn to care for and support the preservation of nature, especially with our locally diverse populations.

Donations from Cargill’s Land Management team, with Ric Notini and Brian Luce, have supported Summer Camp and our Blue Goose Transportation fund for the last several years. This funding will now continue to help us with our new version of Summer Camp, piloted last year with online meetings of local children and remote projects that can be accomplished at home with materials we provide. The Society has found Cargill to be a robust supporter of the Refuge’s mission in many ways, facilitating the stewardship of the Don Edwards SF Bay National Wildlife Refuge as local partners for communities and baylands.



### WE MISS YOU at the SFBWS Nature stores!

Currently our in-store sites at the Environmental Education Center in Alviso and Visitors Center in Fremont are closed. We have missed you! Our Online Nature Store was a bust! We moved too soon, without fully taking into account the amount of staff time it would take to process orders. Without easy access to the SFBWS offices in Fremont, this makes fulfilling and shipping more difficult than we anticipated.

Stay tuned for Online Nature Store: Take 2 in coming months. If you want to volunteer to help or have ideas on how to accomplish this activity, write [Mary!](#)



## Restoration and Reflection in the North Bay

It was a sunny Sunday afternoon in January when I headed to San Pablo Bay National Wildlife Refuge to capture images in the magical late afternoon light that stretched my shadow legs across the dried winter pickleweed. Accessed from westbound Highway 37, the Cullinan Ranch parking lot was overflowing. Visitors were kayaking, fishing, walking, bird watching, taking photos, and finding respite from the traffic and the times. They wore masks, were careful to socially distance, kept their dogs leashed, and were curious about the refuge.



The science and art of restoration have advanced exponentially since San Pablo Bay National Wildlife Refuge was authorized in 1970 to provide habitat for canvasback and other migratory ducks and wetland affiliated endangered species. The often decades long process of recreating marsh on subsided agricultural fields is underway across large portions of the refuge. For example, Sonoma Baylands, breached in 1996 now has a mature tidal marsh and channel network, while on the other side of the eastern levee, Sears Point restoration, breached in 2015, is predominantly mudflat. (See below)



On the east side of Sonoma Baylands levee is Sears Point mudflat from the 2015 breach.

Oat hay production continued for a few years after 1991 when the 1,500 acres of Cullinan Ranch became part of the refuge. Next seasonal wetland plants and shallow seasonal ponds provided habitat for migratory waterfowl. Herons, egrets, and raptors roosted in the trees and shrubs that grew alongside former ranch roads.

Join the **Friends of San Pablo Bay National Wildlife Refuge** by becoming a [member](#).

This Friends group supports three Refuges within the San Francisco Bay NWR Complex: [San Pablo Bay](#), Antioch Dunes, and Marin Islands.

Stage two of the Cullinan restoration began with the introduction of tidal water during a January 2015 breach event. The tides deliver the essential building blocks required to grow marsh vegetation: sediment, nutrients, and plant propagules (seeds or broken-off bits of plants that take root in a new location). The number and type of habitats in the restoration progression depends on the site's elevation, the sediment load available to build up the bottom elevation to be right for plant growth, and the wind/wave generated disturbance to newly sprouted plants.



Sonoma Baylands, 300 acre restoration, has a mature marsh plain and channel network after being breached in 1996.



The native plant nursery grows hundreds of plants for restoration projects, often planted by students participating in Point Blue guided field trips.

Another tool in the restoration process is to add sediment in the form of dredged material. This process is being used on a portion of Cullinan and was used at Sonoma Baylands to speed-up the development of endangered species habitat.

Each intermediate stage in the restoration process provides valuable habitat. These two large striped bass are each more than 22 inches long, hooked by one of Sunday's fishers are a great example of the species that are harder to observe. The stripers were destined to be center stage at the angler's dinner table.

Unvegetated, shallow water provides great shorebird foraging and roosting habitat. Here's a trick for learning about water depth. When the birds fly up from the shallow water, look at the length of their legs to get an idea of the water's depth. If you are lucky enough to walk the levee between Cullinan and adjacent Pond 1 it's easy to see hundreds of birds using the shallow intertidal habitat during migration, which is going on right now. It's an exciting time for restoration of thousands of acres of north bay wetlands!



Striped bass (at least 25 inches long) hooked at Cullinan Ranch January 17, 2021.

# San Francisco Bay National Wildlife Refuge Complex

by Chris Barr, Acting Complex Manager

We are so grateful that you are part of our Refuge family and I hope you all are doing well during these challenging times. As I reflect back on the past year and all of challenges and changes, one thing has remained the same—you. You have reminded us of the importance National Wildlife Refuges are to people and the value you place in having healthy lands and water for your own mental and physical health. We have seen high visitation numbers in 2020 across our Complex as people looked to social distance and get outdoors. I'm also reminded of the important conservation work we do and how much our volunteers, non-profit partners, local and state agencies, and partnering federal agencies do in helping us to restore wildlife habitat. From the tiny Lang's metalmark butterfly and native riverine dune plants at Antioch Dunes NWR to the large Elephant seals and seabird colonies found out on the Farallon Islands NWR, our conservation partners are key to our work in saving and protecting critically endangered species. We wish to thank all of you for making the future brighter for wildlife and helping us provide safe places for the public to recreate and enjoy the natural beauty found across your National Wildlife Refuges!

In 2020, we experienced a number of staffing changes, we gave thanks to employees who retired or moved on to new career opportunities including former Complex Refuge Manager, Anne Morkill (Feb 2020), Public Affairs Specialist, Doug Cordell (Jan 2020); and most recently Environmental Education Specialist, Genie Moore (Dec 2020). We welcomed on board Wildlife Refuge Specialist, Alyssa Clevestine and Temporary Wildlife Biologist, Jerrod Sellers. We recruited and filled two critical maintenance positions, two critical law enforcement positions (See Staff coming & goings section for more details) and in early 2021 hiring a seasonal urban park ranger position. We will continue to make progress in refilling additional vacancies in 2021 as we welcome in our new team members.

I am in awe of all that we were able to accomplish in 2020 despite staffing and global pandemic challenges. We completed our 3rd year of implementing the Complex Natural Resource Management and Inventory and Monitoring Plan ([Refuge Priorities](#)) making progress on priority strategies around eight conservation targets. A few key Complex highlights include: the completion of the Sonoma Creek Enhancement Project, which was highlighted in the latest edition of Audubon Magazine; [a struggling California marsh gets an overhaul](#) to prepare for rising seas); critical levee maintenance and repair projects were started across the Don Edwards San Francisco Bay NWR; and we highlight those in this edition of Tide Rising. We also initiated construction on Phase 2 of the South Bay Salt Pond Restoration Project (Phase 2 projects) to restore tidal marsh and other wildlife habitat in the South Bay. We continued efforts of restoring the riverine sand dunes on

Antioch Dunes NWR's where in partnership with the Port of Stockton we have added to date 92,000 cubic yards of sand onto the dunes to support three endangered species: the Lange's metalmark butterfly, Antioch Dunes evening primrose and Contra Costa wallflower.

While our public education and public outreach programs faced many challenges this year, thanks to the San Francisco Bay Wildlife Society, our visitor service team developed virtual programs that allowed us to deliver our summer camp program virtually, and helped us provided live virtual public tours, and distance learning environmental education content for teachers and parents. Check out all the great new content! ([distance learning](#)). Miguel Marquez, Urban Park Ranger launched our new Agents of Discovery app and mascot and worked with our Regional office to share stories about the diversity of our visitors such as [A tribute to the Latino legacy of Salinas Valley](#) by our region's [Hispanic Access Foundation](#) fellow [Armando Porras](#). The story highlights the Latinx community surrounding the [Salinas River NWR](#) and their tremendous contributions to our country.

I am particularly grateful to all of you for your continued support either as refuge volunteers, supporters of our non-profit partners, or the general love, care and concern you have for your favorite National Wildlife Refuge. I wish you all a happy and healthy new year, and look forward to seeing you out on the trails or waterways enjoying the diverse recreational opportunities your National Wildlife Refuges provides that are helpful to our communities mental and physical health and excited for all we will achieve together in 2021. Stay safe, Stay healthy, and thank you for your continued support.



View from Fremont marsh  
(Ambarish, 2018)

# USFWS Complex Staff Additions

## Joining -- USFWS as Fish & Wildlife Officers:

**Alex Holt**, Hi Everyone, my name is Alex Holt and currently live Placerville, CA, just east of Sacramento. I have a wife and two boys; Liam who is 7 and Everett who just turned 4. In my free time we enjoy hiking and fishing as a family. In my free time I enjoy watching the SF Giants, playing baseball, and coaching the sport with my boys. In 2012, I obtained my bachelor's degree in Natural Resources from Oregon State. I spent 13 years in the Army Reserves as an MP or Military Police Officer. My unit was in Mountain View, so I know a little bit about the bay area. A few years back, I worked a couple of seasons for California State Fish and Wildlife on the coded wire tag survey for Chinook Salmon. I also spent a season doing timber marking and cruising for the Forest Service in the El Dorado NF. Most recently, I was employed with the El Dorado County Sheriff's Office as a Correctional Officer but decided I needed to get back outdoors. I love to learn, and I am excited to get out to the field and work with and learn from my coworkers

**Mathew Baird**, I grew up in California's central valley. Camping, hiking, backpacking, and skiing in the sierras and fishing in the rivers and streams of the valley. After high school I joined the Air Force and served in Japan for 3 years before being stationed at Robins Air Force Base. At the end of my enlistment, I continued working at Robins as a civilian while pursuing a college degree at night and online classes. I finished my degree in Fish and Wildlife Science through Oregon State University in 2018 after a volunteer internship as a fisheries technician with the Georgia Department of Natural Resources. I have a wonderfully supportive wife, two young children (Levi - 7 and Dani - 5), and a rambunctious, bedhogging French bulldog. We are all looking forward to settling in California as soon as possible.

## Joining -- USFWS Maintenance team

**Lydia Woltjer**, I live in East Oakland with my cute puppy Tunechi. Born and raised in Spokane, Washington and moved to Kaneohe, Hawaii as a young adult. I love music, camping, surfing, playing with my dog, being social, and going to the river. I have lived in the Bay Area between SF and Oakland off and on for 17 years. I spent a few years in Los Angeles and earned a Bachelors degree from UCLA in Physical Geography/Environmental Science in 2012. Recently, I served as a East Bay Regional Park District Ranger in Oakland and San Leandro shoreline parks. I was with the National Park Service in SF before that as a Gardener/Maintenance for almost 5 years and worked as a Biological Science Technician and Restoration Technician in numerous permanent and seasonal positions with NPS, non profits, and The Presidio Trust. I've spent many seasons in Natural Resources doing vegetation management, habitat restoration, and as a Wilderness Ranger for Sequoia Kings Canyon National Parks, Klamath National Forest, and here in the Bay Area. Even went to Ohio doing invasive species management (IPM) work once and lived on a nature preserve. I'm excited to come back to The Department of Interior in a new role with USFWS and meet you all!

**Tyrone Asencio**, I am currently working at the William L. Finley National Wildlife Refuge. My hobbies include hiking, camping, bicycling, rockhounding and ocean fishing. I graduated from CSU Chico in 2014 with a degree in Agriculture with the Land Resource Management Option. I started off as a Bio Aid for Badlands National Park then worked a seasonal and TERM employee for the U.S. Fish and Wildlife Service as a Bio Tech before becoming an Equipment Operator. I have enjoyed working with the Fish and Wildlife Service and looking forward to learning about another Refuge



Leafy solitude on the Refuge >>  
(Ambarish, 2018)



<< Sunset over a Refuge  
(Ambarish, 2018)

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