



TORREYANA

THE DOCENT NEWSLETTER FOR
TORREY PINES
STATE NATURAL RESERVE

Issue 411

September 2019

From Blue Water to Green Water and Back Again

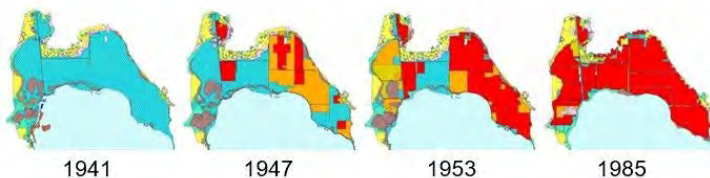
by Joan R. Simon

It is always a special treat when a TPDS docent is the speaker at our monthly meeting. In August, we were fortunate to have **David Walker** (class of 2016) describe his experience in Florida working on the restoration of Lake Apopka and its north shore wetlands.

Lake Apopka, which is just northwest of Orlando, is the fourth-largest lake in Florida. The lake and restored wetlands cover 50,000 acres. For comparison, Los Peñasquitos Lagoon is 900 acres; San Dieguito, 300 acres; and San Elijo, 1000 acres.

In the early 1900s, Lake Apopka was a most popular recreation and fishing spot, attracting people from all over the country. But from 1941 to 1986, nearly the entire natural wetlands north of the lake was converted into muck farms, which are farms established on drained soil and used for growing vegetable crops such as carrots, celery, cabbage, and corn.

Storm water from the farms, containing fertilizers, was pumped into Lake Apopka. During the 50s, 60s and 70s, the lake went from natural blue to algae-filled green. Sport fish like bass and crappie were replaced by rough fish like gizzard shad and gar. The entire fish camp economy associated with the lake collapsed.



North shores wetlands; red areas are farms

In 1986 and 1987, the Florida state legislature passed two laws to help restore the lake by supporting a large-scale

Docent General Meeting

Date: Saturday, September 14, **6:00 pm**

Location: Pavilion behind the Lodge, TPSNR

We will begin with a potluck dinner and announcements, a special "mystery guest," and presentation of the winning photographs for the 2020 Tide Calendar. A full-moon hike in the Reserve will follow.

Please bring a dish to share (appetizer, main dish or dessert); your own plate, utensils, and cup (water, coffee and tea will be provided); and a flashlight for the hike. A significant other is invited. RSVP by email to Ingo Renner.

filter-marsh and shad-harvesting project. Water was filtered through the wetlands and into the lake, and the amount of runoff discharged into the lake was substantially decreased. These measures lowered phosphorus levels in the lake and began to reduce algae, but the farms were still discharging nutrient-rich storm water into the lake.

Trying a new approach, the Florida legislature passed the 1996 Lake Apopka Restoration Act, which directed the purchase of all the remaining farmland on the north shore of the lake. The ultimate cost was over \$100 million. Re-

flooding the newly-acquired lands, however, did not solve the problem because pesticides remained in the soil. There was DDT (banned in 1972); Dieldrin (banned in almost all cases in 1974 and completely in 1984); and Toxaphene (not banned until 1982 and 1990). The primary route
(Cont. on pg. 2)

Inside

From Blue Water to Green...	1-3
President's Message	2
Meeting Minutes	3-4
Children's Program	4
Docents of the Month	5
TPDS Board Application	5
Beach Interp. Kiosk (BIK)	6
Ethnobotany-Buttercup Family	6-8
TP Book Club	8
NDS - Geology	8
Bird of the Month	9
Bird Survey	9

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FLASH From Joy Inton: Don't forget to donate your ZooNooz magazines to the Museum Shop.

President's Message

As summer comes to a close, I find myself reminiscing about summers long ago. I was eight when I helped build a lookout in a tree, on the bank of La Mirada Creek. I got dirty exploring with all my senses. I quickly figured out which plants would cause me to itch — and still detest thistle. I discovered tadpoles, dragonflies and algae. I credit an amazing sixth grade outdoor education teacher for my life's passion with nature, but those wonderful days of hanging by the creek transformed my life.



Fast forward a few decades — children do not play outside anymore. Today's children are spending seven hours every day staring at a screen, and only a few minutes outside. Time in nature can reduce stress, while increasing energy, creativity and physical fitness. Kids need nature! And so do parents, grandparents and caregivers. According to the Child & Nature Alliance of Canada, "The best way to get a child outside is to go with them." We can lead the next generation to a meaningful relationship with the natural world. Let's go!

See you on the trails.

Janet Ugalde

President, TPDS

(Cont. from pg. 1)

this lethal cocktail took was from soil to fish to birds. And the birds, which were flocking to the newly opened north shore wetlands, were continuing to die. So the question became: how to reduce the pesticides to safe levels for fish and wildlife. Because the pesticides were mostly bound to carbon in the top 12 inches of soil, the scientists and engineers focused on developing a soil inversion system to invert the soil, moving the most pesticide-laden layers from the top to the bottom. Large, specialized equipment (see photo) was used to accomplish the restoration. (Cont. on pg. 3)



Specialized soil inversion machine to deeply bury top layer pesticides

Between 2007 and 2009, the complex task of flipping the topsoil with the less-contaminated soil below was accomplished. The total acreage that was remediated was almost 4000 acres. At a price tag of \$2500 per acre, the cost of this engineering feat was nearly \$10 million. This reduced the pesticides by over 65 percent at the surface.

The decontaminated lands were then slowly re-flooded, allowing wetlands plants to grow and become established. Today the lake and wetlands are on the mend. A record number of birds have been sighted at the lake, including Snail Kites and Swallow-tailed Kites, Anhinga (or Snakebird), and the King Rail, a close relative of our Ridgways Rail, to name just a few. In fact, there are more than 370 bird species of birds at Lake Apopka, more than any number in a comparable-sized area. (For comparison, all of San Diego County, one of the largest and most diverse counties in the country, has 500+ species of birds.) The area has become a refuge for all manner of animals, among them bobcats, river otters, alligators, cottonmouth water moccasins, and armored catfish.



Bobcat and River Otter encounter



King Rail (eastern and freshwater version of the TPSNR Ridgway's Rail)



Anhinga (or snakebird or water turkey)



Swallow-tailed Kite

The bike trail on the southern side of the lake continues through the north shore, completing a 51-mile trail around the lake. The newly built 11-mile North Shore Wildlife Drive has become a treasured pathway through the wetlands. (There are over 7,000 members of the Facebook group from all over the world.) The annual North Shore Birding Festival, started in 2016, has become a symbol of the recovery of this natural gem in the heart of Florida.

General Meeting Minutes: July 13, 2019

Meeting called to order at 9:00 am by President **Janet Ugalde**.

Speaker: Fellow docent **David Walker** presented his very interesting lecture *Blue Water to Green Water and Back Again; the Restoration of Florida's Lake Apopka and North Shore Wetlands* (see the article on the front page).

President's Report: **Janet Ugalde** reminded docents that the September 14 general meeting will be an evening potluck event starting at 6 pm (see the announcement on front page). Next Janet explained that **Pao Chau** had Sorrento Valley Automotive evaluate the docent truck's longevity to determine whether to have the costly repair

of the airbag performed. They projected a high probability of other expensive repairs in the near future. With **Thomas Holland's** opinion that the truck should not be driven by anyone with the inoperative airbag due to insurance issues, the board voted to donate the truck. The board also decided it would consider truck rental for future events and needs. If you are on a committee that needs a truck for an upcoming event, advise your committee board member liaison to get a rental truck approved.

Janet announced that new docent training for this year starts September 14, and there are twenty accepted trainees so far. A few more trainees are being sought. If you know someone who might be interested, a link to the application form is on our website under *Volunteering*.

Vice President's Report: **Roger Isaacson** informed the docents that **Ingo Renner** did an outstanding job building three "mouse proof" drawers for our Library computer desk. This is a much more convenient place to store the docent laptop and all essential items for a Torrey Circle Pavilion presentation and other IT accessories for the video room.

Beach Information Kiosk (BIK): **Ray Barger** gave a presentation on the BIK, which he and his wife **Jane Barger** created over a year ago. So far this summer they have hosted the BIK seven times on weekends, and they are seeking other docents to help with staffing. If you staff the BIK and are Roving Interpreter-qualified, log your hours as Roving Interpreter. Otherwise, log your hours under the TIK. (For more information on the BIK, see the article on page 6.) Ray will be presenting the August 17 Nature Discovery Series event at the Torrey Circle Pavilion titled *Geology in the Reserve*. He and Jane will present the September 21 talk titled *What's on the Beach and What's in the Ocean* at the picnic tables in the South Lot.

Nominating Committee: **Ken King** explained that the committee is made up of five members: **Ken King, Janice Barnard, Peter Domaille, Don McGuire, and Joe Meyer**. They are tasked with presenting a slate of prospective 2020 board members to the Docent Society. See article on pg. 5 to learn more about the positions and how to submit an application.

Host with the Most: **Janet Ugalde** noted that hosting the Lodge is a very important docent job every day of the week, but explained the board wants to especially recognize docents who Lodge host on weekends. (It is well documented that we need more help on weekends for both Lodge hosting and Public Walks.) She asked all docents who had hosted a weekend shift this year to stand and be recognized. She then announced that **Sara Mussen** and **Lorraine Stein** were "Hosts with the Most," as they had each hosted the Lodge on weekends seventeen times this year, followed closely by **Don McGuire** and **Selma Torres**.

General: **Margaret Fillius, Jeannie Smith, and Barbara Wallach** had a blast when they participated in "Escape the Nat" at the Natural History Museum. They highly recommend it, with the ideal number being four participants. The cost is only \$20/person for members.

Kristine Schindler has scheduled a North Torrey Pines Road and lagoon cleanup for Sunday, August 18 at 8:30 am. She also announced she is a volunteer coach for a "free" fall prevention program titled *Matter of Balance*. She will send out a Google Group eblast to gauge the interest in a class for docents that would meet at the Lodge one day a week for eight weeks. Contact Kristine if you are interested.

Docents of the Month: **Pete di Girolamo** and **Bob Glaser** for their outstanding efforts on the Garden Committee. The plantings around the Torrey Circle Pavilion look amazing.

They both are avid Whacky Weeders, and Bob participates with the monthly bird counts.

Refreshments: The September meeting is an evening potluck, where everyone brings something to share (see notice on front page).

Meeting ended at 11:00am.

Children's Program

by *Louis Sands, Children's Program Coordinator*

The Children's Program reservation system has opened, and two thirds of the available slots have already been confirmed! Per usual, we will welcome a diverse group of schools: Title I and financially well-off, secular and religious, nearby and far away, foreign language immersion and English-only, new and returning. However you slice it, looks like we are in store for another fun year!

To all returning Children's Program docents: Start signing up! The signup process is exactly the same: [Click here to sign up](#). The path is [torreypine.org/Volunteering/Docent Logins](http://torreypine.org/Volunteering/DocentLogins). Shoot me an email if you need a password reminder!

If you have not participated in our program, then make sure to attend our kickoff meeting: **September 11 at 10:30 am**, Torrey Circle Pavilion. Stop by to mingle with seasoned Children's Program docents who are ready to answer your questions, and leave feeling inspired to combat our kids' nature deficit disorder (NDD) challenges! **Janet Ugalde** and I wholeheartedly welcome your support.

NDS (Nature Discovery Series)

Sept. 21 at 10:30 at the picnic tables adjacent to the South Beach parking lot. "What's on the Beach and What's in the Ocean?" Jane and Ray Barger will talk and display items from the BIK and from their collections, including trash decomposition. We will also have a shorebird display. A walk along the beach will follow to look at the cliff geology and help identify items that participants find on the shoreline and sand. Maybe even a dig for sand crabs.

Oct. 19 at 10:30 at the Pavilion. Norrie Robbins will discuss the "Geology and History of the Los Peñasquitos Watershed." A short lecture followed by a hike.

Nov. 16 at 10:30 at the Pavilion. Judy Schulman will bring to life "Camp Callan During WWII at Torrey Pines." A short lecture followed by a hike.

No NDS in December.

Docents of the Month: Pete di Girolamo and Bob Glaser

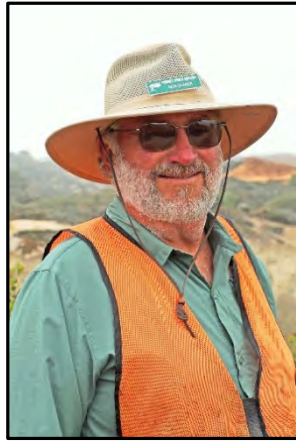
Photos by Herb Knüfken

Bob Glaser

In my opinion using one's senses is the best way to enjoy TPSNR. I look forward to my mornings of volunteering when I am in an environment so different from where I live. I hear birds instead of horns. I see trees and the ocean rather than buildings and roads. I feel the wind on my face rather than the heat from the pavement.

TPSNR provides many types of volunteer opportunities. All of these are a welcome change from my professional career, which included working with companies involved in environmental investigations and cleanups. I encourage each docent to try a variety of activities. We can learn something from each one.

Currently I volunteer with the Garden Committee, Whacky Weeders, and Roving Interpreters. In the past I have worked in the Lodge and at the TIK. Who knows what is next?



Pete di Girolamo

Staying Native at the Reserve

With the encouragement of Supervising Ranger Dylan Hardenbrook and ongoing watering efforts by the park aides, Bob Glaser and I have been able to plan and plant the Pavilion area and see continued growth of the new pines and Reserve-sourced natives. This effort is an extension of the Lodge Garden Committee, which has an ongoing role in the seasonal challenge of maintaining plants in the Lodge area and Whitaker Garden. Along with the Pavilion effort, we have also planted four pines in Whitaker Garden's difficult soil.

My docent activities have primarily involved the Garden Committee and Whacky Weeding, when my back allows. These interests are an extension of my 18 years of native gardening at home in North Park and support of my wife's involvement in the California Native Plant Society. We are both native Southern Californians and have camped much of the state while raising two sons. Memories include chasing them down the Reserve's old Fat Man's Misery trail in the early 70s (and probably a few un-cabled off-trail detours, I'm ashamed to admit).



TPDS Board Member Application

by Ken King, Nominating Committee Chair

Please consider serving on our docent board! It's a great way to learn what's going on, and you get a say in the decisions faced by the board at the monthly board meetings.

Docent Society board members are the elected leadership of our society. They oversee our activities, create and approve new activities, take care of our finances and reporting, communicate board decisions to TPDS members, and work with the State Parks staff. Members of the board are expected to attend the majority of the monthly board meetings and actively participate in discussions and decision-making. All of the terms are for one year.

Each of the five at-large members serve as liaison to specific docent activities such as the Children's Program, Lodge hosting, weeding, etc. Those assignments are selected at the first board meeting of the year.

The Nominating Committee, appointed by the board, asks the general membership to consider serving, accepts applications, and chooses the nominees who comprise the proposed slate for the coming year. The slate is presented to the general membership in October and the members vote in November. You can obtain the application form here: [Link to Box.com](https://www.tpsnr.org/Link-to-Box.com).

Your application will be reviewed by the five Nominating Committee members: **Ken King, Janice Barnard, Peter Domaille, Don McGuire, and Joe Meyer.**

Beach Interpretive Kiosk (BIK) Gets Underway

by Jane and Ray Barger

TPDS has created another venue to help “educate and interpret” for our visitors called the Beach Interpretive Kiosk (BIK). Modeled after our successful Trail Interpretive Kiosk (TIK) in the Main Reserve (West Lot), the BIK is focused on exhibits, props and games that enhance our State Beach visitors’ ocean experience.

Using our new green TPDS EZ-Up and table skirt, the BIK is a highly visible display located at the foot of the south stairs at the South Lot. The BIK can be set up whenever beach sand, tides and weather permit.

Experience from four “pop-up” BIK deployments in 2018 and seven BIK sessions to date in 2019 suggests the best time for putting up the exhibit are 9 am to 1 pm on Saturday and Sunday mornings, as long as the tide is low.

Future 2019 dates for the BIK include:

- Labor Day Weekend (Aug. 31, Sept. 1 & 2)
- Sept. 7 & 8
- Sept 21 (Nature Discovery Series on TP Oceans will be held at the South Lot picnic tables)
- Sept 22

BIK dates for later September 2019 and into the fall are “to be determined.” Future dates are dependent on docent interest and on moving the BIK gear from the North Lot to a permanent home in the South Lot. Equipment includes our new EZ-Up, along with tables, chairs and exhibit boxes. We plan to move this gear to a shed that will be located in the picnic area of the South Lot.

Docents interested in joining **Ray & Jane Barger** at the BIK on the above dates are welcome.

Docents can support the BIK from 9 am - 11 am or from 11 am - 1 pm (or for the full four hours as their time permits).



Docents will receive informal “on the job” training to familiarize them with the exhibits and will be expected to engage our beach visitors. This “shadow and interact” process has worked well to date.

Current BIK exhibits include:

- Ocean plastics (and game)
- Sharks
- Dolphins
- Whales (and puzzle game)
- Stingrays
- Mollusks (and game)
- Kelp & Ecosystem
- Trails & Beach Walks
- Beach Geology
- Torrey Pines Main Reserve Brochures

Click on the link below for an overview of the BIK’s set-up, content, exhibits and props -- and then please join us for two or more hours at the BIK! tinyurl.com/TPDS-BIK-info

The Ethnobotany of the Buttercup Family at TPSNR

by Jane Barger and Debi Buffington

This month’s ethnobotany article includes information on the Buttercup Family, one of the flower families in the Reserve.

Ranunculaceae – Buttercup family

Patterns of the Buttercup family include:

- o Regular or irregular simple flowers
- o 3-15 sepals
- o 0-23 petals
- o Multiple simple pistils, usually with hooked tips in the center of the flower



California buttercup (*Ranunculus californicus*)

Native people used the seeds, which were dried, pulverized, and ground into flour. The flour was used to make bread and mush, which tasted like parched corn.



Blue larkspur (*Delphinium parryi*)



Scarlet larkspur (*Delphinium cardinale*)

Native people ground the root to make a salve for swollen limbs. The flowers were ground into a paste to make a blue dye to decorate bows and arrows. All parts of this plant are poisonous, which is why this family is also known as sleep root. Native people would use the plant to drug their opponents, and the plant is also known to poison cattle. For a beneficial use, Native Americans used five parts vinegar or rubbing alcohol and one part larkspur flowers boiled in water as a treatment for head lice, body lice, scabies, and other “varmint.”



Little mouse tail (*Myosaurus minimus*)

This plant was chewed to make a poultice used to reduce swelling and discomfort from ant bites.



Smooth leaf meadow rue (*Thalictrum polycarpum*)

The roots and stems are poisonous, so they cannot be ingested. However, the Native Americans crushed the stems and soaked them in water to make a wash that could be used for headaches or sprains, sore joints, gout or sciatica.

(Cont. on pg. 8)



Ropevine clematis or Virgin's Bower or Pepper Vine (*Clematis pauciflora*)

The leaves and stems can be chewed for colds or sore throats. Native Americans used approximately one tablespoon of chopped leaves, steeped in boiling water for 15 minutes and drunk as a remedy for migraine or cluster headaches.

More TPSNR flower families coming next month.

Torrey Pines Book Club

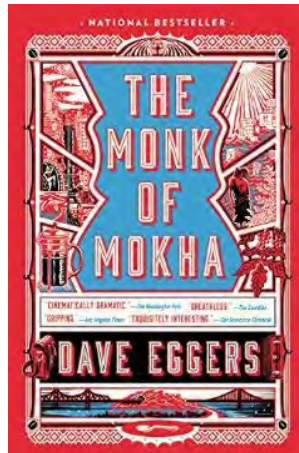
When: Tuesday, September 10, 1:00 pm

Where: Ann Gaarder's home (Carmel Valley)

What: *The Monk of Mokha* by Dave Eggers

Amazon says:

Mokhtar Alkhanshali is twenty-four and working as a doorman when he discovers the astonishing history of coffee and Yemen's central place in it. He leaves San Francisco and travels deep into his ancestral homeland to tour terraced farms high in the country's rugged mountains and meet beleaguered but determined farmers. But when war engulfs the country and Saudi bombs rain down, Mokhtar has to find a way out of Yemen without sacrificing his dreams or abandoning his people.



All TPDS docents are welcome. Meetings usually last a couple of hours. RSVP to **Ann Gaarder** if you plan to attend. (Check Member List for email or phone number.)

October 8: *The Moth Snowstorm: Nature and Joy* by Michael McCarthy

Nature Discovery Series: Geology in the Reserve

by Lynne Truong

"Geology in the Reserve" was the topic presented by **Ray Barger** for the Nature Discovery Series on August 16, with about 30 attendees. Erosion formed the primary Torrey Pines sedimentary rock strata. The oldest layers formed 40-50 million years ago are the Del Mar Siltstone, Torrey Sandstone, and Ardath Shale. The pretty red Linda Vista formation from a million years ago sits on top of the cliff, and the newest layer, the Baypoint Formation, can be found along the lagoon, at the base of the cliff. The Pacific tectonic plate is moving Torrey Pines ever so slowly to the northwest. The seasonal waves move the beach sand and undermine the cliff base. The weak upper bluff's exposure to weather leads to dangerous bluff failures. Ray emphasized not to walk close to the base of the cliffs due to potential rock fall and showed examples of recent collapses.

Debi Buffington and Ray Barger led two groups on a walk to West Overlook to view the different rock layers forming the Torrey Pines cliff. The walk continued to the Scripps Overlook at Parry Grove to see the other forms of erosion, the wind caves and the badlands.

For more information, Ray referenced the geology pages 71-82 in the Torrey Pines State Reserve green book, and [click here to download Pavilion Presentations](#)



Bird of the Month: Song Sparrow

by Jack Friery; photo courtesy of Herb Knüfken

Our featured bird this month is the **Song Sparrow**, *Melospiza melodia*. This streaky little brown and gray bird can be found from the Aleutians to Florida, and from Canada to Mexico. The Song Sparrow is about six inches long, and weighs about an ounce. There is a conspicuous black spot in the center of its breast.

Watch for it at the Reserve (and in your yard) nervously hopping on the ground in search of seeds, and quickly retreating to nearby shrubs when disturbed. When feeding, the bird does the “Song Sparrow Shuffle,” hopping forward and then back to uncover seeds and ground insects in the leaf litter.

The Song Sparrow, true to its name, has a lovely liquid song, heard most often from late winter through early spring. Its song has been described as “a variable series of trills and clear notes with slightly husky quality and pleasant gentle rhythm” (Sibley). And the bird is well-named scientifically. Its generic name, *Melospiza*, is Greek for “song” and “finch,” and its specific name, *melodia*, is Latin for “a pleasant song.”



Sources: allaboutbirds.org/guide/Song_Sparrow/overview

The Sibley Guide to Birds, p. 498 (National Audubon Society)

Choate, *The Dictionary of American Bird Names*

Torrey Pines Docent Society Bird Survey: August 2019

Number of species: 64
(+3 other taxa)

Mallard 3
California Quail 3
Pied-billed Grebe 2
Eurasian Collared-Dove 5
Mourning Dove 47
Anna's Hummingbird 19
Rufous/Allen's Hummingbird 15
Killdeer 3
Whimbrel 4
Long-billed Curlew 15
Marbled Godwit 1
Heermann's Gull 16
Western Gull 27
California Gull 5
Caspian Tern 16
Royal Tern 8

Pacific Loon 4
Brandt's Cormorant 3
Double-crested Cormorant 6
Brown Pelican 71
Great Blue Heron 7
Great Egret 3
Snowy Egret 8
Black-crowned Night-Heron 2
Osprey 2
Cooper's Hawk 3
Red-shouldered Hawk 1
Red-tailed Hawk 4
Downy Woodpecker 1
Nuttall's Woodpecker 12
American Kestrel 4
Peregrine Falcon 2
Pacific-slope Flycatcher 1
Black Phoebe 21
Say's Phoebe 1
Ash-throated Flycatcher 2
Cassin's Kingbird 10

Hutton's Vireo 2
California Scrub-Jay 15
American Crow 29
Common Raven 11
swallow sp. 8
Bushtit 69
Wrentit 74
Blue-gray Gnatcatcher 4
California Gnatcatcher 30
House Wren 11
Marsh Wren 1
Bewick's Wren 12
wren sp. 5
California Thrasher 7
Northern Mockingbird 6
Scaly-breasted Munia 10
House Sparrow 5
House Finch 83
Lesser Goldfinch 43
Dark-eyed Junco 5
Song Sparrow 32

California Towhee 80
Spotted Towhee 25
Yellow-breasted Chat 3
Hooded Oriole 1
Red-winged Blackbird 1
Orange-crowned Warbler 7
Common Yellowthroat 10
Yellow Warbler 1
Black-headed Grosbeak 4

Observers: Frank Wong, Andy Rathbone, Marty Hales, Steve Neal, Bob Glaser, Herb Knüfken, Kathy Dickey, Karen Messer, Manolo Turner, Mark Embree, Patti Kroger, Tsaiwei Olee, Jack Friery, David Walker, Deborah Walker, and Anonymous

View this checklist online at ebird.org/view/checklist/S59029404

Herb Knüfken's amazing photo gallery, including many birds, may be found here: pbase.com/herb1rm



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