

THE TIDINGS



LAKE MERRITT INSTITUTE

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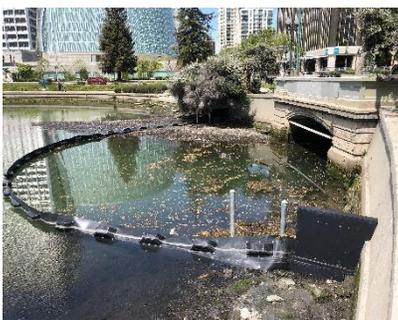
“GIVE THE LAKE A BREAK!” - Mayor Schaaf

Ten weeks into sheltering in place, Lake Merritt and its surrounding parklands are far from an idyllic garden of Eden free of human trash and reclaimed by wildlife as some predicted as a result of closures. Trash is building up along the shoreline and on land spilling out of trash cans and blowing into the lake. Protecting human health is the first priority but the strict guidelines have limited the ability of city employees to deal with the mess.

The operation of the Lake Merritt Institute (LMI) has changed dramatically. LMI depends on the work of hundreds of volunteer citizens to remove thousands of gallons of trash from the lake each month. When Oakland Public Works (OPW) and the Department of Parks, Recreation and Youth Development (OPR&YD) halted the gathering of volunteer groups in May, LMI’s program dropped from 33 volunteers *per week* before closures to only 9. The work of cleaning the lake and fulfilling LMI’s contract obligations now falls on the shoulders of Executive Director James Robinson and one remaining staff person who continue to battle the deluge of trash.



Two masked women remove trash from the Glen Echo Creek inlet 6 feet apart using their own gloves.



James and the LMI Board of Directors are seeking clarification from our contract manager and from city guidelines of the status of LMI staff and regular volunteers (the A-Team). They could potentially qualify as performing an Essential Governmental Function (EFG). The LMI Board is drafting a Covid Policy for approval by our contract manager. At this difficult time, LMI’s 2-year contract with the city (which provides 80% of our income supplemented by memberships and donations) may go before City Council for approval of its second year. Support letters to the Mayor and City Council would be appreciated.

Above: New trash boom installed at Glen Echo Creek inlet to Lake Merritt by Public Works and Measure DD Coalition

LMI in APRIL: 1,860 gallons of trash were removed from the lake in APRIL. Total gallons collected in 2020 is **11,580 gallons**. *The City will henceforth measure trash in gallons not pounds.

LMI Director James Robinson and Staff hosted **41 volunteers**; no presentations or meetings because of closure. **0.70 inches** rain were recorded by LMI rain gauge

VOLUNTEER PROGRAMS POSTPONED: Until we have our Covid policy in place and current restrictions are lifted, LMI's Clean Lake Volunteer program is on hold. Our U-Clean-It boxes will not be available and will be locked. We appreciate the cooperation of everyone who limits time at Lake Merritt, wears a mask and observes social distancing. It's fine to enjoy the lake responsibly. Stay healthy and save lives!

2020 CITY NATURE CHALLENGE AT THE LAKE



Overview 124 OBSERVATIONS 77 SPECIES 46 IDENTIFIERS 11 OBSERVERS Stats

About Leave 7

-- Because of the Covid-19 Pandemic, this bioblitz was cancelled, so the date range for this project was changed to reflect City Nature Challenge as a whole. --

Lake Merritt in the heart of Oakland is the jewel of the city and teeming with life. During this event

Read More >

Project Journal

The California Academy of Sciences' "City Nature Challenge" discouraged any gathering in parks this year because of the Coronavirus pandemic.

Although the [Lake Merritt BioBlitz 2020](#) was formally cancelled, local individuals went out to observe and document biodiversity at the lake from April 24th-27th.

This year, seventy-seven species were photographed including a record number of sea squirts, or tunicates, thriving on docks, seawalls and rocks. All are exotic species transported by human activities. Tunicates are our closest invertebrate (backbone-less) relatives in the lake, possessing a stiff rod or notocord during their development the same as we do. They are filter-feeders whose negative impact is largely to compete with native species.



Four of at least five species of tunicates observed at Lake Merritt. From left, the San Diego sea squirt, the stalked sea squirt, the solitary sea squirt, and the star tunicate. Missing from photo line-up, the chain tunicate. Scientific names: *Botrylloides diagenesis*, *Styela clava*, *Ciona savignyi*, *Botryllus schlosseri*, (missing) *Botrylloides violaceus*. First two photos by Katie Noonan, last two by Damon Tighe, iNaturalist.

The plankton of Lake Merritt were featured in Save San Francisco Bay blog, Biodiversity and the Bay. (<https://savesfbay.org/biodiversity-and-the-bay>)

Please direct questions and comments to The Tidings Editor, Katie Noonan, at knoon@aol.com.

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DOMESTIC DUCKS AND UNFORTUNATE FROGS



Black duck breed and Crested duck breed. Photo by Kerstin Fermin.

Two domestic ducks (left) have been hanging out by the storm drain outlets on Lakeside Dr. causing comment and concern from passersby. The ducks appear to be doing fine. They are specialty breeds of the barnyard domestic duck (*Anas platyrhynchos domesticus*). Varieties of ducks or breeds, like Darwin's pigeons and different breeds of dogs, show the effectiveness of artificial selection. There are several domestic breeds of black duck. The white duck with the poofy top-knot is likely a [Crested duck breed](#). All domestic ducks are descendants of the wild mallard duck, *Anas platyrhynchos*, which is abundant at Lake Merritt.

The new ducks were probably released by owners who didn't want them anymore. Releasing unwanted pets at Lake Merritt is illegal and irresponsible. There is no food or care provided in the wildlife refuge. Exotic species can threaten native species here at the lake.



Dead frog floating by the nature center: photo by Deah Schwartz.

Live frogs were reported near the Rotary Nature Center on May 16th. Later, joggers were disturbed to see a clump of dead frogs at the shoreline. Apparently, someone released bullfrogs which are fresh water amphibians in the lake which is brackish (salty). Because of the drought, the lake is almost as salty as seawater (see youth water quality report below). The frogs can't maintain osmotic balance in saltwater.

Turtles and bullfrogs are sometimes purchased for food and then released when people have a change of heart. It is not a kind thing to do.

YOUTH WATER QUALITY REPORT

FIRST-EVER ZOOM WATER MONITORING! St. Paul's 5th graders were able to return to their normal sampling site and collect data with the help of Katie Noonan of LMI and Rotary Nature Center Friends. They had not been able to do so since March because of Covid.

Dissolved Oxygen top 5.5 parts per million (ppm) / bottom 4 ppm (high)

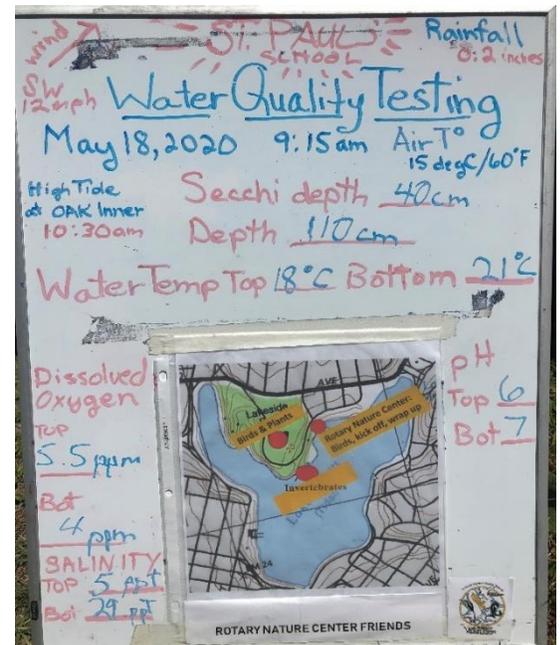
pH top 7/bottom 7 (normal)

Salinity top 5 parts per thousand (ppt) /bottom 29 ppt (*stratified*: It's low at top and high at bottom. This condition can lead to low oxygen at depth).

Water Temperature top 18 degrees Celsius (64 degrees Fahrenheit) top/ 21 deg Celsius (70 degrees Fahrenheit) bottom (normal)

Water Clarity (Secchi) 0.40 meters (turbid – not clear. This is typical after a spring storm of 0.2 inches rain. There was a lot of floating pollen as well as branches and trash).

Water Depth: 1.10 meters



The whiteboard was filled in as the students read instruments and made observations remotely.

Earth Day at Lake Merritt: Still There - by Hilary Powers – Golden Gate Audubon Society

The 4th Wednesday of April fell on Earth Day this year, with the Earth rather quieter than usual in the Bay Area, and doubtless many other places as well. Golden Gate Audubon cancelled the walk again as required, but I'd quietly passed the word that I'd be there anyway. My co-leader and two other birders joined me for a safely distanced bit of permitted outdoor exercise, plus a pause by the bird paddock to hang the Earth-from-space flag one of the birders brought.

It was a beautiful clear day, sunny and not hot, but the air seemed strange. Looking out from the starting point at the dome cage end of the boathouse lot – empty because this time the main drive-in entrances to the park really were blocked off – we saw a faint sparkle across the islands, like a thin gold mist. Not gold, but more valuable to the Violet-green and Northern Rough-winged Swallows that visit the lake in the late spring and summer: a fog of midges, more than we'd seen (or at least noticed) before. Which made it even odder that we didn't see our most common flycatcher, the Black Phoebe, all morning – the first April since 2010 to miss that bird. Perhaps there were simply too many places for a phoebe to get breakfast for us to spot one in action!



As hoped last month, the Double-crested Cormorants have at last established their rookery on the island, with 9 busy nests. It's smaller than usual, limited to the one really bare tree, so the tree they've only half killed seems to be getting the year off. That's ideal, as far as I'm concerned: cormorants with fuzzy black babies to watch, plus a chance of recovery for a far from full-sized tree. (In case you were wondering, these birds – our only tree-nesting cormorants – prefer to build in the sun. If they can find exposed spots, they won't bother trees with a lot of leaves... but they'll take them if that's all they can get, and the situation corrects itself over the next few years as their droppings convert leafy trees into nice sunny bare ones.)

A Green Heron prowled along one of the islands as we gathered for the walk. Though that's always a welcome sight, this one was more frustrating than usual as the best the binoculars could do was show us a gray blob balanced on orange sticks floating from one gray rock to another, with a glimpse of the rufous breast and dark beak for those who knew what to look for and where to look for it. Normally the first response to a Green Heron is to grab for the spotting scope, which would bring the view within arm's reach and show every feather, but our scopes are out of action for the duration.

Out on the lake, the winter migrants had mostly emigrated onward, but we still had a fair number of scaup – both species – and some gloriously ruddy Ruddy Ducks. Forster's Terns dipped and dived, retreating to rest on the floats farthest from the nature center. They're coming into full breeding plumage, with black caps and white wingtips; lovely creatures, like gulls redesigned for racing speed, and we rarely see them except in late spring. Several Eared Grebes patrolled the water, mostly underneath, while putting the finishing touches on their party suits. (By next month, they'll probably be gone, not to be seen again till September – when they'll be all gray with bits of white and black, showing no trace of their current luminous metallic tones.) We also saw several Pied-billed Grebes, also due to be gone next month (though they'll probably return by June or July), and one big Western Grebe, unlikely to reappear till next October or maybe even November.

Lakeside Park had its own rewards, too: droves of robins on the lawns (and we don't see robins every month), plus chickadees and titmice and most of the other usual suspects. Bushtits appeared singly, a truly unusual sight! Most of the year, they fly in tight flocks of a dozen or two, but nesting couples split off to raise their

broods (of up to 10 chicks!) alone, social distancing avian style. One of these flying mice landed about three feet over my head, ignoring me completely, focused on the serious business of staying alive.

As are we all in this second month of the declared pandemic – but nonetheless, with 36 species on view (a reasonable April total), it was another very good day at Lake Merritt, where every day....

*****AUDUBON BIRDWALKS AT THE LAKE:** Join bird expert Hilary Powers any fourth Wednesday of the month for a free “Birdwalk” at the lake. Muster at the geodesic bird cage near the Nature Center at 9:30 a.m. for what are always fascinating introductions to lake birdlife. ***

DUCK PONDS GO DRY – GOOD SAMARITAN WORKERS STEP IN

The bird sanctuary yard at the Rotary Nature Center has looked unkempt and trashy during the Covid closure. The fresh water ponds have been left to dry up leaving the usual birds without fresh water. Birds need water for drinking and bathing.



Dry ponds were cleaned and refilled.



Muscovy duck takes a bath at last!

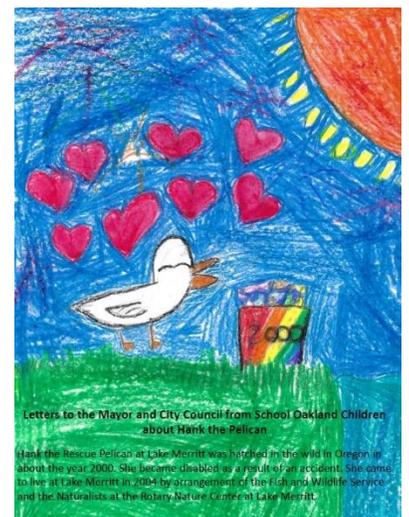
MAKING HISTORY! Forty Cleveland Elementary School students and their teachers finished the year with a first-ever Zoom bird walk at Lake Merritt.

In collaboration with Rotary Nature Center Friends, Ms. Lau’s and Ms. Fong’s 40 studied the ecology of the lake with a focus on pelicans. They took a special interest in Hank, the disabled American White Pelican that used to be cared for by the Rotary Nature Center Naturalists from 2004-2019 but has received no official care since April 2019.

The students went on a real bird walk in January 2020. Then on May 15th, they were led on a 50-minute virtual bird walk with naturalist Patty Donald and David Wofford, both of Rotary Nature Center Friends, to see how the lake and its birds have changed with the seasons.

The students worked with their teachers and 5th grade students to write letters to the Mayor and City Council advocating for resuming the feeding of Hank during winter months.

The students understand that the City is very busy dealing with the pandemic. They are hoping to hear from the Mayor and City Council about their concerns soon. As the next generation of environmental activities, they want to know that their voices were heard.



Read student letters at:
<https://sites.google.com/view/stem-at-lake-merritt/online-activitieslessons>

CLIMATE CORNER: -- THE OIL VIRUS THAT SAVED THE CLIMATE
A Guest Editorial by Dr. Richard Bailey

It began slowly at first, like they all do. The large cities were hit worst, but within days small towns along the interstates and even local highways began to notice that strange things were happening.

Rachel was driving her son to pre-school when the car began running rough. Muttering, she vowed to get that long delayed tune up done, as soon as they could afford it. Then the engine died. It would not re-start.

Mike just had his SUV tuned up, so when it sputtered and died, he had it towed back to the shop and angrily confronted the owner. “What the hell did you do to my car” he yelled.



<https://levittown-tribune.com/>

Nobody was watching. Nobody expected it, least of all the auto repair shops. And so it continued; more and more internal combustion vehicles were breaking down on the side of the road. Social media picked it up first, and soon the tweets, posts, videos and chat rooms were filled with frustration. In every case the electrical systems were fine, but the engines were not getting enough gas.

An astute maintenance worker at a Texas refinery was first to sound the alarm. Filters at the plant were getting clogged; production was shutting down. Administrators were angry. Laboratory personnel were puzzled. Nothing like this has ever happened before. The search through oily tanks and pipes revealed thickened crude and clumps of denser material; but why? Other refineries along the continent straddling pipelines reported similar problems.

Concerned about their stock price, brand image and bottom line, the oil companies quickly marked internal documents regarding the problem as “not for public release.” But as the problem morphed into a catastrophe and spread from state to state, it could not be ignored. Soon private testing laboratories were analyzing the supply chain from crude oil at the well, at gas pumps, and at millions of cars and trucks that would no longer run.

What they found was not easily explained. Something was using the highly concentrated energy of the fossil fuels to grow, turning hydrocarbons into tissue, reminiscent of photosynthesis, but without the light. It came from centuries old oil deposits miles underground where people have never been. Scientists named it Paleo petrolensis. Like the micro-organisms in Yellowstone hot springs, it was surviving the heat and pressure of refining processes. Spores of the newly discovered entity were like a virus, something that could assume a dead form during inhospitable conditions, yet return back to a living form that could reproduce and grow. Grow it did. Released from bonds in refined gasoline, what became known as the oil virus contaminated every place that used gasoline. The world had a new pandemic.

**At right: The Embarcadero Fountain, cleaned by
LMI staff and back in action in May.
Thank you!**

