

# The Lake Merritt Institute

A COMMUNITY BASED, NON-PROFIT CORPORATION

568 Bellevue Avenue, Oakland, CA 94610; 510/238-2290; [lmi@netwiz.net](mailto:lmi@netwiz.net); [lakemerrittinstitute.org](http://lakemerrittinstitute.org)

**VOLUME XVII**

**"TIDINGS" - JULY, 2012**

**ISSUE VII**

"Tidings" is an editorial newsletter. Opinions expressed are not necessarily those of the City of Oakland.

**UPDATES:** (from the Measure DD Community Coalition Meeting Notes for May 21, 2012)

- 12th Street Project: Progress continues at a rapid pace, with a high level of activity. Project completion is expected by the end of 2012.
- Cleveland Cascade: Robert Flemming reported that the park is clean, lit, and the railings are properly aligned. Barbara Newcombe reminded the Coalition that work days at the Cleveland Cascade are scheduled for the first Saturday of every month.
- On behalf of the Oakland Museum, Bill McMorris expressed interest in working with the Coalition on plans for the Lake Merritt Blvd. Opening Celebration. He suggested that the event might be scheduled in coordination with the Museum's planned opening of its Natural Science gallery on May 31 of 2013 (Editors Note: The gallery will include an exhibit on Lake Merritt).
- Snow Park: Joel reported that the design is about 65% complete and will include a paved promenade. Naomi expressed a concern that the paved promenade might attract unsuitable uses, and Joel noted that the Planning Commission would determine which uses are appropriate.



**MY LIFE STORY:** So there I was, merrily bobbing along on the gentle waves of Lake Merritt one fine summer day and hoping to drift on out to sea where I could sink and be re-united with my ancestors. I am a rubber ducky, and this is my story.

I began life as a plant, millions of years ago when giant tree ferns sank to the bottom of a carboniferous sea near what is now Alaska. Back then the climate was very warm and reptile like creatures roamed near the Arctic Circle amidst ferns and other lush vegetation. Slowly, over eons, I was buried in the sediment. Layer after layer of organic matter built up above me as my atoms sank ever deeper, building the pressure and heat that changed me into that magic chemical, oil.

There I resided for eons as strange creatures called humans evolved and began to dominate the earth. One day they sucked me up from my comfortable home beneath the sea, pushed me into a pipe, then onto a boat and sent me to this horrible place in California called a refinery. Believe me, you don't want to go there. My molecules were torn apart, then recombined into something else. I was now another magic chemical, rubber (yes, synthetic rubber is made from oil).

Shipped again to a far off factory, I was melted, colored and smashed together into my current form, Doobie the duck. For a while life was good then, floating in a clean, sudsy bathtub with my new owner, a cute one year old named Lucy. But then one day she took me outside. The sun was bright and although there wasn't

as much carbon dioxide in the air as when I had been a plant and the climate was much warmer, it was increasing (rubber duckies notice these things).

Unfortunately, Lucy dropped me, then ran off to play somewhere else. Lonely and alone, I waited by the curb and once was even squished by a tire. Hey, we're made of the same old oil stuff I yelled, but it rolled away. I was happy the next day because it rained, and ducks love water. Soon I was swimming on the street but then a big storm drain inlet sucked me down into this underground pipe. Splashing along with all the junk from the street was not fun. There were lots of other chemicals made from oil, like plastic bags, straws and bottles and, this being a storm drain, we were all headed to the nearest publicly owned water.

Splash! Out we popped onto the surface of Lake Merritt where I drifted along with my living bretheren, the geese. It's OK, but I long to sink and return to the ancient sediments from which I came millions of years ago. And if I go, I would take some of the carbon with me, hiding it from the atmosphere and returning it to where it came from. But then some wise volunteer named Lloyd scooped me up with a net, smiled at me and stuck me in an office. So now I sit atop a video machine, an ancient carbon fossil, longing to return to the earth. If you had left me alone down there you would not be in this climate mess.

**WILD OAKLAND:** The mission of Wild Oakland is to provide free, Oakland-centered environmental education. To do this, they are sponsoring monthly field presentations at Lake Merritt. These events will be for adults as well as children so come on out and join the fun. For details on upcoming walks, visit [www.wildoakland.org](http://www.wildoakland.org). On Saturday, July 14<sup>th</sup>, their topic will be:

**Insect Safari at Lake Merritt**

**Presented by Eddie Dunbar from the Insect Sciences Museum of California**

[www.bugpeople.org](http://www.bugpeople.org)

Participants get hands-on with some of the same tools that real entomologists use. Tools are used in a guided insect collection/survey. Participants will find out what roles insects play in the environment, what insects are, and why they are so successful and so very, very important. Participants make and test hypotheses they make about what insects may be present and where they can be found. In small groups students will cover safe use of insect nets, forceps, collecting jars, and magnifying loupes in the outdoors.

Participants will talk in more depth with Museum staff about insects and the science of entomology. At the walk conclusion

participants will reassemble talk about what they've collected, observed and learned. If resources permit the catch may be viewed under a microscopy system.



**BIRD COLUMN:** Due to summer scheduling changes, this July issue was written before the fourth Wednesday bird walk. A double column featuring birds from both June and July will appear in the August *Tidings*. Until then, hop or fly on down to the Lake and check them out for yourself.

**CLIMATE CORNER:** Geo-Climate Engineering: Michael Specter has written an excellent and highly recommended article on geo-engineering our climate for the New Yorker magazine (May 14, 2012). In it he examines the proposals to inject reflective particles (such as sulfur dioxide) into the upper atmosphere to reduce the amount of sunlight hitting the Earth enough to slow global warming. Before you reject this as

science fiction, consider that the eruption of Mt. Pinatubo in 1991 blasted enough sulfur dioxide into the air to reduce sunshine striking the Earth more than 10% during 1992 and 1993, reducing global temperatures more than a degree Fahrenheit! Duplicating this could be easily done with technology that is now widely available and very affordable for most nations and even some individuals. It is currently being studied by prestigious academic institutions and a preliminary test of the methods has even been proposed. Although this would be like prescribing chemo-therapy for the planet, it may well become necessary to avoid runaway climate change. Chemo-therapy is bad, but thousands of people agree to it so that they can survive a while longer.

What Would it Take to Avoid Geo-engineering? But perhaps the most enlightening portion of this New Yorker article deals not with the lesser of these two evils (climate change and geo-engineering) but rather with the scale of efforts required to reduce emissions of greenhouse gases enough to avoid disastrous warming. To do so would require efforts which are politically and economically impossible given the current state of concern over climate change among nations in the northern hemisphere. Although many do not believe that, consider that to replace just *one third* of the fossil fuels now used to power the world with carbon free power would require:

- Construction of a nuclear power plant every week for the next fifty years or;
- Erecting thousands of windmills every month.

The scale of reducing carbon emissions and the cost of removing carbon from the air is astronomical. Given that this is not likely in our lifetimes and will not happen soon enough to stop carbon levels (now at 392 parts per million and rising 2 ppm/year) from exceeding 450 ppm (a likely threshold for unstoppable climate change due to positive feedback loops) the author considers the possibility that nations now facing annihilation, such as the Maldives, which is being flooded into oblivion, or China, which will suffer dramatic loss of irrigation water when glaciers disappear, might just decide to geo-engineer the world on their own. This sounds dramatic, but is no more so than declarations of war, unilateral pollution or climate change. And if they did start pumping sulfur into the air, could you blame them? These are issues that our children, our grandchildren, and probably generations to come for a thousand years will have to consider, and act upon.



*A snowy egret comes in for a landing at Lake Merritt.*

*You can tell them apart from the larger great egret by their “golden slippers” which they wiggle on the bottom to scare up food, and by their black beak.*

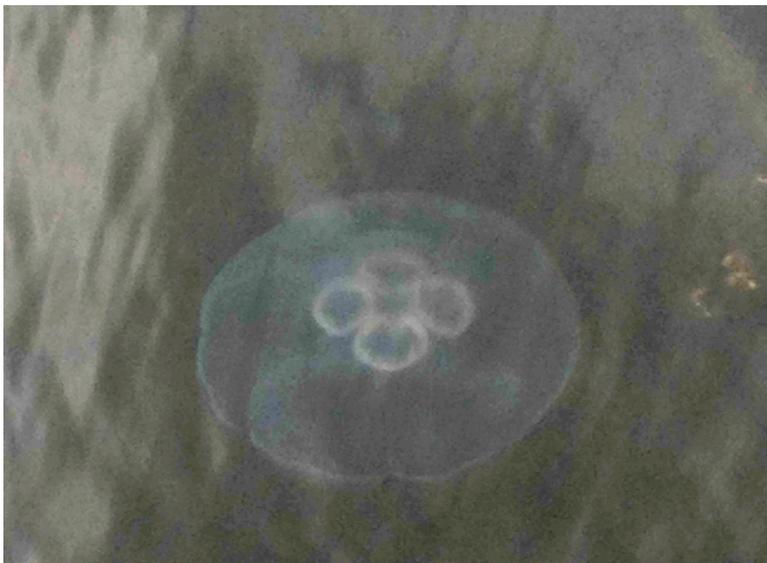
*Photo by Lee Aurich*

## THE OAKLAND HIGH ENVIRONMENTAL SCIENCE ACADEMY

The Environmental Science Academy (ESA) is a California Partnership Academy. As part of a smaller learning community within the comprehensive high school, our students follow a common academic program that emphasizes academics and careers in environmental science. For recent pictures and updates, visit our website at <http://www.teacherweb.com/CA/oaklandhighschool/Noonan/>

A student-operated field station at Lake Merritt provides focus and incentive for learning the principles and practice of environmental stewardship. We take students out into the environment for study, community service and enjoyment of our natural surroundings. The Academy works with business and governmental agencies to align our curriculum with the requirements of colleges and the workplace. We are part of the California Community Colleges SB70 Environmental Career Preparation Program.

## RECENT SCENES FROM THE LAKE



*Aurelia aurita*, the common moon jelly.

Not common, but not rare in Lake Merritt, these visitors from the San Francisco Bay have been delighting pedestrians this spring as they pulse up and down in the shallow, shoreline waters.

Occurring world wide, this planktonic (that means it drifts with the currents) jellyfish can grow up to 15 inches in diameter. It captures plankton (tiny plants and animals) on a sticky surface on the outer part of the bell and oral arms. Comprised of about 99% water(!) they may exhibit purple (male) or white/yellow (female) gonads.

Fortunately for those who touch them, these medusa do not sting with their tentacles like other members of the Cnidaria (a group which includes jellyfish, comb jellies (we have these in Lake Merritt too) and By-the-Wind Sailors). In Australia, the box jellyfish harbors stinging cells that can kill a full grown human in minutes. In the Chesapeake Bay, sea nettles are so numerous that swimming beaches are enclosed in fencing to keep them out. But our Lake Merritt jellyfish are more benign, so enjoy these ancient life forms that visit us from the ocean and have been around for millions of years.

*This edition of "Tidings" was published entirely with private funding donated to the Lake Merritt Institute, and not with funds from the City of Oakland. To contribute to the Institute, use PayPal at our website or send a check to: The Lake Merritt Institute, 568 Bellevue Avenue, Oakland, CA 94610.*