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The Most Dominant Plant around the Lake

By Kaletha Patterson



George Forni, President of Aquatic Environments Inc.

The month of January may not immediately conjure images of trees, flowers and plants around Lake Merritt; after all it's winter, and it's typically too cool to think beyond the ordinary wintry images of ice, solid lakes and naked trees.

Winter's chilly temperatures are not adequate for aquatic vegetation during this time of the year when daylight is short and the sun is not penetrating the region with as much heat.

Yet January is a good time to begin thinking about the spring and all the changes that it brings, such as the most dominant and prominent plant known as widgeon grass.

According to George Forni, President of Aquatic Environments Inc., widgeon grass is normally found in shallow regions where the planted root can remain submerged and sunlight can easily reach it. It's also found in coves.

Widgeon grass is primarily found in brackish lagoons or in areas with salt water. Forni explained that once this plant has established itself in a lagoon, it's not

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JLAC Announces Spring Introductory Single-Sculling Classes

Learn to single-scull, just like they do at Harvard and Yale!

This spring, the Jack London Aquatic Center will offer introductory single-sculling classes for adults on the tranquil waters of the Oakland Estuary. During two-day Saturday-Sunday classes, JLAC instructors will teach the basics of water safety and the skills of single-sculling. Classes are limited to four students; students must be able to swim.

The JLAC is located in Oakland's Estuary Park, on the Embarcadero between Oak Street and Fifth Avenue.

Cost is \$100 per student for each two-day class. Spring 2009 class dates are January 31-February 1; May 16-17; June 20-21. For more information or to enroll, go to www.jlac.org or contact JLAC Director of Rowing DeDe Birch at 510-208-6060, ext. 3.

The Most Dominant Plant... cont.



A photo of widgeon grass as it is collected

easily removed from this habitat. One reason for its prevalence in lagoons could be attributed to the lack of significant movement. Widgeon grass flourishes in Lake Merritt because of the muted tides where only a certain amount of water can flow in and out as opposed to heavy tides.

It can be difficult to project the longevity for a season of widgeon grass. As Forni explained, cyclical changes in the plant occur at the Lake based on weather conditions. Drier years seem to produce more widgeon grass as opposed to years with heavy rains when less widgeon grass grows.

Widgeon grass is a perennial plant that often gets mistaken for a freshwater plant. It's known to be very beneficial for wildlife, as many species of duck utilize the stems and leaves.



A photo of widgeon grass as it is collected

Coots Hanging Out at the Lake

By Kaletha Patterson

American Coots are distinguished by their all black, feathery coat, white bills, fiery red eyes and stately white stripes on the sides of their undertails.

Coots have a good time swimming and diving and although they're often mistaken for ducks, these birds do not have web feet. Instead, they have a unique set of lobes on their toes which allow them to paddle through the water or transition to grazing on land.



A close-up photo of an American Coot

They are labeled as noisy birds that are both territorial and feisty, with a range of body postures used to communicate among themselves from altering the angle in which they arch their wings to changing the angle of erecting the feathers along their necks.

When it comes to gathering food, American Coots are **none for hunting** and tend not to hesitate when taking what they want from other birds and ducks.

As bold as an American Coot's physical presence is, among marsh birds Coots are considered the least graceful. When journeying across the water, they often splatter water when trying to become airborne and they are known to bob their heads while walking or fending off prey.

Last month hundreds of Coots were noted to have appeared in the Lake, near the pergola, and they are often seen in the duck pond in Palo Alto.

Salinity Levels in the Lake

Salinity levels in the Lake can vary due to factors that include estuaries which are naturally variable and man-made changes that have a significant impact on increased variability. Man-made changes include paving the watershed whereby rainfall flows downstream and increases the runoff speed and lowers salinity at a faster rate than if rain just sank into the ground.

During most of the year, the Lake, which is an estuary, is similar to the Bay, but at times runoff from the watershed is the dominant factor in controlling salinity in the Lake. At the dam, once the outflow has been set several feet above the bottom of the Lake, the natural tendency of the water to separate into a fresh layer and a salty layer will be enhanced. Known as stratification, this can occur with differences of as little as a few parts per thousand (ppt) and causes differences in the salinity of the top and bottom waters. The average ocean salinity is 35 ppt.

When the County closes the tide gates, fresh water flows across the top of the lake and out during outgoing tides, but the bottom, salty water stays behind.

This channel connection to the Oakland Inner Harbor used to be at least 400 feet wide and extremely deep. Now you can throw a stone across it and it is only several feet deep. This significantly reduces tidal flushing and makes the Lake fresher than it used to be.

The net result is that the Lake typically has salinity levels a bit below that of sea water in late summer and early fall. These levels drop after significant rainfall events, then climb back up when the county flood control gates are reopened during high tides. As the winter proceeds, salinity levels drop in a seesaw pattern (assuming a normal rain year).

Lake Merritt History Facts

- Before 1850** In "pioneer days," game of all kinds was plentiful in the immediate vicinity of Lake Merritt and constituted the main source of food for area residents.
- 1853** Mayor Horace Carpentier completed a toll bridge across the creek then known as San Antonio Slough, now 12th Street. The bridge measured 1,300 feet and had a span to permit passage of vessels.
- 1861** Local manufacturers petitioned the County Supervisors to widen the span in the Oakland Bridge (12th Street), at their own expense, so that they could ship products through it to San Francisco Bay.
- 1869** California Legislature declared the Lake Merritt area to be an official game refuge. This resulted in an ever-increasing number of ducks and geese making the area their winter home.
- 1869** Mayor Samuel Merritt, in a message to the City Council, stated the arm of San Antonio Creek north of the Oakland Bridge was dedicated for a public lake.
- 1874** State of California ceded the lands in the north arms of the lake to the City of Oakland for a water park and through subsequent actions by the State, title to the entire area of the lake was safely vested with the City.

Contributors Wanted

Are you interested in writing and/or contributing articles to Tidings? If so, please send an e-mail and suggested topic ideas to Dr. Bailey at the Lake Merritt Institute: Imi@netwiz.net

Donations Needed

The Lake Merritt Institute is seeking donations, which help us to maintain the quality of the Lake. It's worth a tax write-off!

Tidings

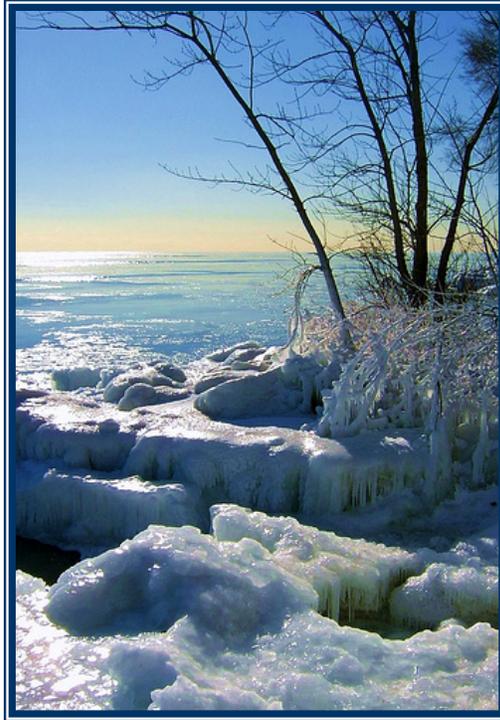
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Poem

News I bring:
bells the stag,
winter snow, summer past;
wind high and cold,
low the sun, short its path,
seas run strong;
russet bracken shape awry;
wild goose raises wanton cry;
cold laid hold on wings of bird,
icy time:
this I heard.

*Irish, Ninth Century
Author Unknown*

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