

TRACKS

A Publication of the Newport Bay Naturalists & Friends

March-May
2008

Upper Newport Bay— Regionally and Nationally Important

Upper Newport Bay is multi-faceted jewel. It is an educational, recreational, ecological and commercial resource of regional and national importance. Inner city schools from Los Angeles, San Bernardino and Riverside counties routinely make field trips to the Bay. Birders from all over the USA visit the Bay to observe the several endangered species found here. As a key stopover and/or resting point on the Pacific Flyway, the Bay is a crucial to the long-term sustainability of many species of migrating birds. And, the Bay is an important spawning and nursery area for several commercial ocean fish, including the California halibut.

NBNF Mission:

- To *preserve and restore* the ecosystems of Upper Newport Bay.
- To *educate* the public about the ecological value of the Bay and its watershed and help ensure compatible public use.

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Dredging Project in Jeopardy

If you regularly drive along Jamboree Road, from the 73 Freeway to the Newport Beach coast, you will have noticed some dramatic changes at the uppermost end of the Upper Newport Bay. Specifically, sediment washed down San Diego Creek has transformed areas of open water into mudflat (see photo). The transformation is impacting habitats and species in the Upper Newport Bay Ecological Reserve significantly. Species affected include those that are endangered, such as the California least tern, and those that are commercially significant, such as the California halibut (see accompanying article). At the same time, sediment carried further down the Bay and out into the ocean has created navigation problems in the Lower Newport Bay, and affected the Marine Life Refuges along the coast.

The need for a long-term solution was identified in the 1990's, various studies were performed, and alternate designs proposed. The outcome was the \$38.5 million UNB Ecosystem Restoration Project ("dredging project") to be funded 65% by the federal government and 35% by local partners.

Although all of the roughly \$13.5 million local share of the funds was committed up-front in 2005, only \$11.0 million of the roughly \$25 million federal share has been provided so far. Recently, Senator Dianne Feinstein and Congressmen John Campbell and Ed Royce were able to secure an additional \$2.2 million in the current federal budget to enable the contractor to start on the crucial main part of the project: the widening and deepening of the capture basin at the entry of San Diego Creek to the Bay. However, unless more federal money is authorized by

the fall of 2008, the work will have to stop and the contractor will demobilize. Remobilization later will result in substantial additional costs.

Sadly, if this funding does not come through in a timely manner, and the much larger and more efficient capture basin is not dredged to the needed width and depth, much of the restoration performed thus far with the local funds may be in jeopardy. The fact that recent wildfires have ravaged the foothills of the Newport Bay watershed, leaving barren hillsides that are prone to mudslide, compounds this concern. If we have a wet winter in the next several years, a major storm will almost certainly dump a massive amount of sediment into the Bay which will be deposited in the recently-dredged areas downstream of the uncompleted capture basin.

To avoid a costly demobilization this fall two things must happen. First, the federal Army Corps of Engineers needs to allocate sufficient bridge funding this summer to keep the contractor fully mobilized pending approval *continued on page 4*



Upper Newport Bay now mostly mud.

Holy Flatfish!

The California halibut (*Paralichthys californicus*) is an important commercial fish that uses Upper Newport Bay as its spawning ground. Halibut and other fish such as turbot and sole are called flatfish because their bodies are flat and they have both eyes on the upper side, a unique adaptation to life on the seafloor. Halibut are not born flat, however. Rather, at a few months of age, the young go through a fascinating sequence of changes, taking on the adult form in a process believed to reflect the evolutionary development of the species.

A halibut begins life as a tiny egg about the size of a grain of sugar, just one of the several hundred thousands that can be produced by a female in a single spawning. Upon hatching, each larva remains temporarily nourished by the remnant yolk sack. Halibut begin feeding for themselves within a few days, when their jaws become functional and the yolk sac is depleted. At this time they still have eyes on opposite sides of their head like most fish. As they approach metamorphosis, however, one eye—usually the left, sometimes the right—begins to migrate over the top of the head to the same side of the head as the other, and the larva transitions to swimming on its side. When fully migrated, the eyes are able to move independently, so the fish can see in all directions as

they lie at the bottom. As part of these changes, the halibut also takes on two-tone coloring, which serves as effective camouflage from prey and predators alike. Although the upper side can vary from a light brown to a more colorful speckled pattern, the lower side is always lighter in color. This coloration disguises a halibut from above (blending with the ocean floor), as well as from below (blending into the light from the sky). In general, halibut prefer a sandy bottom, although they can be found in areas with hard, muddy or gravel bottoms. Their numerous and sharp teeth, along with a large mouth and a high arch in the middle of

their topside, make them easily identifiable from other flatfish that reside along the California coast.

California halibut are predators. Specifically they are ambush feeders that blend in with the bottom and wait for an unsuspecting sardine, anchovy, or other prey to get within striking distance. While they spend most of their time at the bottom, they do move up in the water column to feed. When in chase, California halibut have even been known to jump clear of the water to secure a meal. As a predator, the halibut is near the top of the marine food chain, serving as prey only to larger organisms such as seals, sharks, and, of course, people. A mature California halibut can range anywhere between 6–30 pounds, with some females (which are generally larger than males) as large as 60 pounds.

The rate at which California halibut larvae grow, and their survival success, depends a great deal on adequate habitat for spawning. Shallow coastal wetlands, particularly estuaries such as Upper Newport Bay, offer the warmer water temperatures and abundant food supply conducive to the spawning and development of halibut. Unfortunately, most of these coastal wetlands were lost to development in the 1900's. Concurrently (between 1919 and 1970), commercial catch tonnage of California halibut declined from over 4.5 to less than 0.3 million pounds/year. While several factors (including overfishing) contributed to this decline, the loss and/or disruption of habitat is believed to be of most significance. Fortunately, in more recent years, California halibut catch tonnage has stabilized at over 1.0 million pounds per year, still less than 25% of 1919 levels, but significantly above the low of 1970.

The moderate success in stabilizing California halibut populations is the result of several factors. These include California Department of Fish and Game efforts to enforce stricter permitting requirements on commercial fishing enterprises; legislative bans on certain catch methods (the Anti-Gillnet Initiative of 1990); and improved understanding of the species by diligent scientists. No less significant are the efforts to protect and restore the few wetlands that still remain in the State. Indeed, among the many benefits of the dredging and restoration project currently under way in Upper Newport Bay will be insuring the integrity of the estuary as a spawning ground for the "Holy Flatfish," and many other marine species.

Rosemary Flynn, Naturalist

Back Bay Science Center Open House Saturday May 31

This spring, the California Department of Fish and Game, City of Newport Beach, Orange County Health Care Agency and University of California Irvine will be hosting an open house for the public to view the recently-constructed Back Bay Science Center. The open house will run from 10 a.m.–4 p.m. on Saturday, May 31st, 2008 at the Back Bay Science Center. The viewing will include the Health Care Agency's new water quality laboratory and Department of Fish and Game's teaching laboratories. Talk to the staff and find out about

the exciting plans for education programs. The Center's mission is to provide a hands-on facility where students and the public can study and enjoy the estuarine ecology of Newport Bay and the marine ecology of the ocean, and to promote natural resource conservation and stewardship throughout the watershed. For more information about this event, please call (949) 640-9956 or visit www.backbaysciencecenter.org.

The name "halibut" is derived from the Dutch word *heilbot* which means "holy" (*heil*) "flatfish" (*bot*), as that was the fish favored for eating by Christians on Fridays and Holidays. The halibut continues to have a reputation as a favorite food fish.



California halibut (Paralichthys californicus) on the sea floor off the coast of California.



Upper Newport Bay Calendar of Events

March–May 2008

Steward Days—Every Wednesday, 9:00–11:00 a.m.

Support the Bay's unique genetics at our restoration sites by collecting seeds & propagating plants. Learn how to grow natives in your backyard, attract wildlife and conserve water. For information call (949) 640-0286. Location code: BBSC

Kayak Tours—Every Saturday, 10:00 a.m.–Noon at the Dunes

Join a trained naturalist for a guided kayak tour of the Back Bay. Meet at the Newport Dunes Resort. \$15/person, 8 & up. \$10/NBNF members. Be prepared to get wet. Reservations (949) 923-2269. Location code: NDR

Kayak Tours—Every Sunday, 10:00 a.m.–Noon at the NAC

Join a trained naturalist for a guided kayak tour of the Back Bay. Meet at the Newport Aquatic Center. \$15/person, 8 & up. \$10/NBNF members. Be prepared to get wet. Reservations (949) 923-2269. Location code: NAC

Walking Tour—Saturday, Mar. 1, Apr. 5, May 3, 9:00 a.m.

Join a trained Naturalist for a 2 hour walk along the bay. Bring binoculars and sun protection. Free. No reservations needed. For information call (949) 923-2269. Location code: BBSC

Friends of Newport Bay Walking Tour—Saturday, Mar. 8, 9:00, 9:15, 9:30, 10:00, 10:15 a.m.

Walk along the Back Bay listening to Naturalists and visiting Interpretive Stations featuring natural history specialists. Free. No reservations required. Information (949) 923-2269. Location code: FT

Marine Life Inventory—Saturday, Mar. 8, Apr. 19, May 24, 8:15–11:30 a.m.

Marine biology students ages 8 and up are invited to participate in a variety of hands-on marine life monitoring programs in Newport Bay with the Dept. of Fish and Game. Children under 18 must be accompanied by an adult. Free. Reservations (949) 640-9956. Location code: BBSC

Shellmaker Discovery Tour—Saturday, Mar. 8, Apr. 19, May 24, 9–10:30 a.m.

Join a Naturalist to learn about Shellmaker Island's rich history; the future of the Back Bay Science Center; and discover unusual and endangered plants, birds and crab habitats. No reservations required. No latecomers. Free. Information (949) 640-9956. Location code: BBSC

2nd Sundays Restoration Program—Mar. 9, Apr. 13, May 11, 9:00 a.m.–Noon

Join the staff at the Interpretive Center to enhance the Nature Preserve habitat with non-native plant removal, native plantings and Butterfly Garden maintenance. Reservations (949) 923-2297. Location code: IC

Big Canyon Walking Tour—Saturday, Mar. 15, Apr. 19, May 17, 9:00 a.m.

Join a trained Naturalist for a 2 hour walk along Big Canyon Trail and the bay. Bring binoculars and sun protection. Free. No reservations needed. For information call (949) 923-2269. Location code: Big Canyon parking lot.

Sunset Stroll—Saturday, Mar. 15, Apr. 12, May 10, start times vary

Join park staff for a 90 minute twilight nature walk and discover the wonders that nighttime brings to our nature reserve. Dress warmly. Rain cancels. \$5 per person, age 3 and up. Phone for registration and start time to (949) 923-2275, or email unbic@ocparks.com. Location code: IC

ROOTS Restoration Teamwork—Saturday, Mar. 22, Apr. 26, May 24, 9:00 a.m.–Noon

Help restore Back Bay habitat by installing and maintaining native plants while learning about wetland ecology. Reservations required. Refreshments, tools provided. (949) 640-0286 for information, reservations and location.

Family Fun Walk—Saturday, Mar. 29, Apr. 26, May 24, 10:30–11:30 a.m.

Join park staff for a guided nature walk through the bay. Explore the beauty of the bay and discuss its rich natural history. Programs take place on various trails. All ages. Registration required; map will be sent upon registration. Free. Rain cancels. Phone (949) 923-2275 or email unbic@ocparks.com. Locations vary.

Train for a Day, Volunteer at the Bay!—Saturday, Apr. 12, 9 a.m.–3 p.m.

Become a part of this dynamic estuary! Learn about the habitats and wildlife of the bay. Participate in habitat restoration and special events. Assist with tours. Greet and educate visitors. Registration (949) 923-2275. Location code: IC

Twilight Canoe Tour with Barbecue—Saturday, Apr. 12, May 10, 4:00–7:00 p.m.

Join Naturalists and Sea Scouts for a beautiful canoe tour of the Reserve followed by a cookout at the Newport Aquatic Center. Fee is \$30. Reservations required (949) 642-5031. Ages 10 and up. Location Code: NAC.

For all of the following, call (949) 923-2275 to register or email unbic@ocparks.com. \$5 per child. Location code: IC

Toddler Time (Ages 2–5)

10:30–11:15 a.m. for ages 2–5 years. Join park staff for a parent-child experience with stories, movement and hands-on fun.

"What Good are Bugs"—Wednesday, March 5

"Bouncin' Bunnies"—Wednesday, March 12

"Oodles of Oology"—Wednesday, March 19

"Flower Fiesta"—Thursday, April 10

"Hooray for Earth Day!"—Wednesday, April 16

"Hippity Hoppity Toads & Frogs"—Wednesday, April 23

"Tree' mendous Trees"—Thursday, April 24

"Are Snakes Really Slimy"—Wednesday, May 7

"Butterfly Beauty"—Friday, May 16

"Fungus Fun"—Wednesday, May 21

"Wetland Wildcats"—Friday, May 30

Bayside Buddies (Ages 5–8)

3:30–4:30 p.m. for ages 5–8. Come discover the natural history of the bay through crafts, hands-on activities and nature walks.

"Our Oviparous Friends"—Friday, March 14

"Metamorphic Magic"—Friday, March 28

"Canine Calls"—Friday, April 11

"Arbor Day Celebration!"—Friday, April 25

"Mammal Moms"—Friday, May 9

"Happening Hums"—Friday, May 23

Wild! Tales (Ages 2–7)

10:30–11:15 a.m. Come visit the park staff for story-telling fun. Learn more about the natural history of the Bay through crafts, hands-on activities and nature walks.

"Eliza and the Dragon Fly"—Thursday, March 6

"An Egg is Quiet"—Thursday, March 20

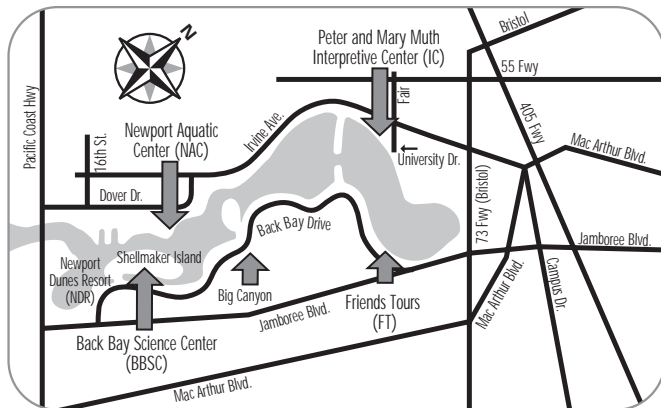
"Fidget's Freedom"—Thursday, April 3

"Someday a Tree"—Thursday, April 17

"Goodnight, My Duckling"—Thursday, May 1

"Who Pooped in the Park?"—Thursday, May 15

"The Very Hungry Caterpillar"—Thursday, May 29



WEB SITES

Newport Bay Naturalists & Friends: www.newportbay.org
 Peter & Mary Muth Interpretive Center:
www.ocparks.com/unbic
 Back Bay Science Center: www.backbaysciencecenter.org
 California Coastal Commission: www.coastal.ca.gov

TRACKS CREDITS

Editor: Roger Mallett
Contributor: Rosemary Flynn
Design & Layout: Debora Brown
Event Calendar: Candice McIntyre,
 Jean Whitaker

LOCATION KEY

Peter and Mary Muth
 Interpretive Center (IC)
 2301 University Drive
 Newport Beach, CA 92660

Back Bay Science Center (BBSC)
 600 Shellmaker
 Newport Beach, CA 92660

Newport Aquatic Center (NAC)
 1 Whitecliffs Drive
 Newport Beach, CA 92660

Upper Newport Bay 18th Annual Earth Day

“Learning from Nature”



Free admission
 and activities!

When: Sunday, April 20—11:00 am to 4:00 pm

Where: Peter and Mary Muth Interpretive Center
 2301 University Drive (at Irvine Ave.)

Scavenger hunt, interpretive programs, live sharks and rays, science discovery and craft booths, environmental exhibits, Newport Beach Film Festival films and much more. Refreshments available.

For information: Call (949) 640-6712 or visit newportbay.org

Dredging Project in Jeopardy (cont.)

of the federal October 2008 to September 2009 budget. Second, the bulk of the remaining federal commitment needs to be included in the 2008/2009 budget.

The County of Orange, the City of Newport Beach and the other cities in the Newport Bay watershed are working with the local Congressional Delegation to secure final funding for the project. The Newport Bay Naturalists and Friends urges them to take every action to secure this funding now in order to honor the federal government's obligation and avoid unnecessary costly overruns. We encourage others to express strong support for a restoration project that is regionally and nationally important. For additional information, including how to contact your federal congressional delegates, visit <http://www.newportbay.org/dredge.htm>.

Roger Mallett
 Newport Bay Naturalists & Friends

Adapted with permission from a recent article in *The Daily Pilot*