

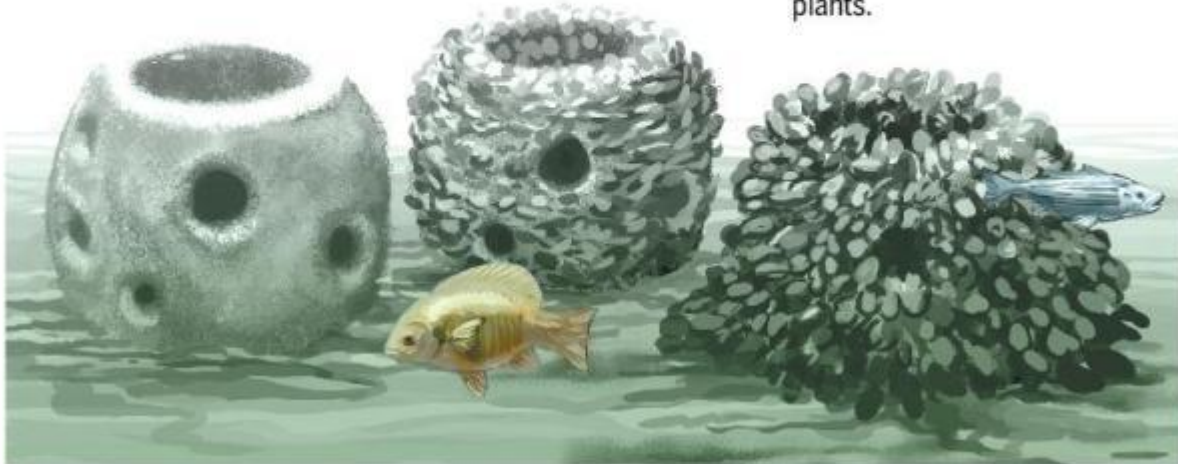
# Artificial oyster reefs planted in San Francisco Bay to bring back the native shellfish

Retrieved from East Bay Times <http://www.eastbaytimes.com/2013/11/15/artificial-oyster-reefs->

## Creating a new home for the Olympia oyster

100 reef balls were lowered into the shallow waters off Point Pinole Regional Park, creating a man-made oyster reef. Here's how it will work.

- 1 Reef balls are created with a mix of concrete, silt and shells.
- 2 The hard textured surfaces are ideal for Olympia oyster larvae to latch onto.
- 3 The artificial reef also creates an environment attractive to other marine animals and plants.



Source: Reef Ball Foundation, Inc.

BAY AREA NEWS GROUP

planted-in-san-francisco-bay-to-bring-back-the-native-shellfish/

By BAY AREA NEWS GROUP

PUBLISHED: November 15, 2013 at 4:52 pm | UPDATED: July 19, 2016 at 10:01 pm

**RICHMOND** — Conservationists planted 100 artificial reefs in shallow San Francisco Bay waters this week to help bring back native oysters and restore the health of the bay.

Gold miners and other early settlers to Northern California feasted on oysters from the thriving commercial fishery in San Francisco Bay in the

1800s before overharvesting and silt from hydraulic gold mining decimated the native oyster population. Later, pollution from growing cities around the bay made it unsafe to eat native oysters as well as farmed oysters brought from the East Coast.

On Thursday and Friday, a nonprofit environmental and education group called the Watershed Project intervened to provide man-made oyster homes for the native Olympia oysters found on the West Coast.

The lowering of 28-inch-diameter reef “balls” made of silt, shells and concrete into shallow water off Point Pinole Regional Park in Richmond culminated three years of planning and working to get the proper permits.

“This is an early first step in bringing back the native oysters to San Francisco Bay,” said Chris Lim, manager of the oyster reef project. “We don’t need to provide the oysters for seeding. We provide the habitat.”

As he talked Friday morning, two men in a boat carefully used a line to lower the 250-pound reef balls into a shallow-water area picked for its hard, stable bottom to keep the reefs in place.

The reefs provide the hard surfaces that tiny oyster larvae need to clamp onto to have a home for life and mature in four or five years to shellfish about the size of a silver dollar.

Most of the natural rocks, pebbles and shells that used to anchor oyster homes are covered up by years of silt.

The native oysters won’t be fit as safe food for humans because of bay pollution. But Lim said the reef balls will help the bay environment in many ways.

The reefs will attract worms, small crustaceans and other small life at the base of the aquatic food chain that supports salmon and other fish, water birds and mammals.

“By restoring oysters, we will help many types of species in the bay,” said Martin Murray, a watershed project intern.

The reefs also will armor the San Francisco Bay shoreline against erosion from increasingly powerful storm waves as global warming raises sea levels worldwide, Lim said.

Oysters also act like kidneys, removing impurities from the bay. The loss of native oysters around the country is a serious problem, scientists say.

Other types of reefs have been planted in recent years by other groups in San Francisco Bay waters near San Rafael and Hayward as well as in other places like New York City.

Lim said his oyster reef project is distinct in the Bay Area because it relies heavily on volunteers and will bring high school students on field trips to visit and monitor the Richmond reefs.

More than 40 volunteers donated hundreds of hours of labor to mix donated shells and dredged bay silt with cement to create the hard reefs.

“Our reef is a community project,” Lim said. “We want people to get the experience of oysters and get connected to their watershed through oysters.”

As the boat lowered the reefs on Friday, some project participants dined on Pacific oysters farmed in Tomales Bay.

“Maybe someday the bay will become clean enough that people can eat the native oysters we’re helping,” Martin said.



A boat from Dixon Marine Services heads to a location where they will lower oyster reef balls into San Pablo Bay off Point Pinole Regional Shoreline in Richmond, Calif., on Friday, Nov. 15, 2013. The Watershed Project is installing 100 of the man made "balls" to promote the establishment of plant and animal life in the area. Dixon Marine donated their services. (Dan Honda/Bay Area News Group)



Ethan Livingston, of Dixon Marine Services, lowers an oyster reef ball into San Pablo Bay off Point Pinole Regional Shoreline in Richmond, Calif., on Friday, Nov. 15, 2013. The Watershed Project is installing 100 of the man-made "balls" to promote the establishment of plant and animal life in the area. Dixon Marine donated their services. (Dan Honda/Bay Area News Group)



Ethan Livingston, of Dixon Marine Services, lowers an oyster reef ball into San Pablo Bay off Point Pinole Regional Shoreline in Richmond, Calif., on Friday, Nov. 15, 2013. The Watershed Project is installing 100 of the man made "balls" to promote the establishment of plant and animal life in the area. Dixon Marine donated their services. (Dan Honda/Bay Area News Group)



A boat from Dixon Marine Services heads to a location where they will lower oyster reef balls into San Pablo Bay off Point Pinole Regional Shoreline in Richmond, Calif., on Friday, Nov. 15, 2013. The Watershed Project is installing 100 of the man made "balls" to promote the establishment of plant and animal life in the area. Dixon Marine donated their services. (Dan Honda/Bay Area News Group)