

## Agua Hedionda free of invasive seaweed

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By Michael Burge  
STAFF WRITER

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CARLSBAD – Six years after an invasive seaweed threatened to take over Agua Hedionda Lagoon and spread to the ocean, the team that battled the species has declared victory.

The elimination of the seaweed from the lagoon and Huntington Harbour in Orange County is a first, said Rachel Woodfield, a marine biologist with Merkel & Associates who managed the eradication effort.

“They’ve never been successful,” Woodfield said yesterday of other efforts to wipe out the seaweed, an alga called *Caulerpa taxifolia*.

Woodfield, who headed the Southern California *Caulerpa* Action Team, said there has been no sign of the alga in Agua Hedionda Lagoon since September 2002, and no indication of the weed in Huntington Beach’s harbor since November 2002.



HOWARD LIPIN / Union-Tribune  
Marine biologist Rachel Woodfield managed the seaweed eradication project.

When first detected in June 2000, the seaweed, dubbed “Killer Algae” for damage it had caused in the Mediterranean, covered 100 acres of the lagoon bottom just east of Interstate 5.

It raised alarms among area biologists because the tropical species is toxic to many native plants and animals, has no natural predators locally and spreads quickly. Infestations in Australia and the western Mediterranean smothered plants there, making it impossible for fish to thrive.

The bright green alga was popular in aquariums until the federal and state laws banned it.

Woodfield said the seaweed probably entered Agua Hedionda Lagoon when someone dumped their aquarium contents down a storm drain.

“It's beautiful in aquariums,” Woodfield said. “It's against the law to have it in California now,” along with eight other Caulerpa species.

To eradicate the seaweed, biologists spread black plastic tarps over the areas where the fernlike alga grew, then injected chlorine under the tarp.

Fearing the effect on the lagoon and ocean if it spread, the eradication team recommended closing the lagoon to recreation for five years.

Residents and boating enthusiasts resisted, and a compromise was reached in 2002 to close sections of the 350-acre lagoon where the team was concentrating eradication efforts.

“For what they had to do I think they did it pretty fairly,” said Jim Courtney, a partner in the Carlsbad Boat Club.

Federal and state agencies involved in the effort included the National Marine Fisheries Service, the California Department of Fish and Game, the San Diego Regional Water Quality Control Board and the U.S. Department of Agriculture.

The fisheries service, National Fish and Wildlife Service, state Coastal Conservancy, California State Parks and the owners of the Encina Power Station contributed to the \$7 million eradication effort.

Eric Munoz, president of the Agua Hedionda Foundation and a former Carlsbad city planner who participated in the eradication, said he hoped a lesson was learned that quick action is needed to battle invasive species.

The eradication team will hold a celebration ceremony at 10:30 a.m. today at the Agua Hedionda Lagoon Discovery Center, 1850 Cannon Road.



DON KOHLBAUER / Union-Tribune  
Restrictions have been lifted at Agua Hedionda Lagoon after the removal of seaweed, which is toxic to many plants and animals.

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