

THE CALIFORNIA ABALONE DIVERS

A Dedicated Breed
In Love With The Sea
By Hillary Hauser



In the frozen stillness of pre-dawn hours, when most people are still asleep, a single boat pulls out of the Santa Barbara harbor and heads out to sea in the direction of the Channel Islands. Two men, wearing heavy coats and hats, stand at the helm of the boat and they will stand for the entire trip across the channel because in a commercial abalone boat no one sits down during rough rides.

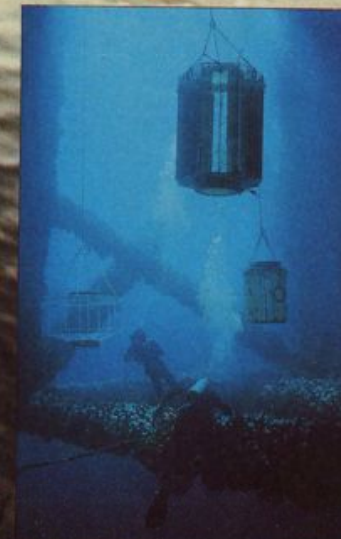
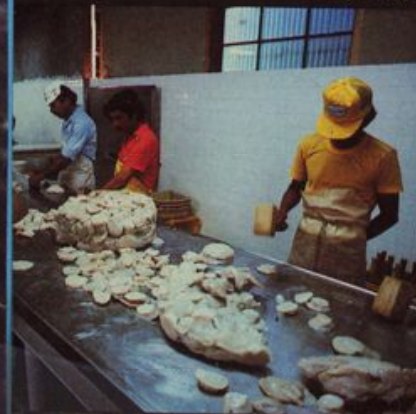
One and a half hours later, just as the sun rises, one man quickly dresses in a heavy wetsuit to make his first dive. The other moves around the deck, tending to the anchor, pulling out a long hookah hose from the hold, preparing equipment for the diver dressing in.

The diver is over the side after getting into his suit, wasting no time on talk. His air bubbles mark the trail he swims and in a short time he is back on the boat. The tender rapidly coils the air hose, pulls anchor, moves the boat, re-anchors, and the diver again rolls over the side. Within an hour the two will have moved to as many as three or four spots, and there will be at least two or three dozen abalone on deck if all has gone well. It will be like that the remaining hours of the day.

The physical requirements to work a large number of hours in the water make commercial abalone divers among the most efficient underwater people in the world. They know where each reef is, where certain shipwrecks are, where there is an ancient Indian midden or a strange phenomenon of sea life



Above: Under a hazy morning sky, commercial abalone divers move their boats to a new site.
Left: Following his air hose back to the boat, a commercial ab diver surfaces with his catch.
Below: Tenderizing abalone slices by pounding. Shelled abalone await trimming and slicing.
Right: Nurseries for rearing baby abalone hang in mid-water beneath a commercial oil platform.



photos/ Bob Evans



— and they are familiar with the times, tides and seasons of the sea. They know the offshore islands like the back of their hand and each reef is like a street in their home town. Commercial divers generally stick together, helping each other when trouble hits.

Many people think about the physical demands made on commercial divers and wonder if they're not a little crazy. It's not just a matter of having arms as big as basketballs and legs as big as tree trunks, nor is it necessarily a matter of wanting the abalone. A common denominator among successful abalone divers is a love of the sea, complete with the cold, the storms, rough water, sun, calm, seagulls, rain and the loneliness — all that is associated with being

on a boat day in and day out.

The wonderers also ask how anyone can base their business on so much chance.

"It's one of the last ways that man can make a living in a frontier way," says one diver. "You know — where he can go out, forage for food, feed his family, bring back meat to the table."

Says another, "To make your living off the sea — that's what it's all about."

It's a business beset with variables: while the average executive can sit in an office building during stormy days and still make a living, the abalone diver may have to stay away from work when seas are wicked. The abalone diver also has to invest heavily in himself — in expensive boats, compressors and air hoses,

high-priced diesel fuel, thick wetsuits, and hard-to-get commercial licenses. And, there is a tender to pay — someone to help him while he dives. The harvest of abalone itself isn't guaranteed either, because abalone beds change from year to year, and they are becoming scarcer off California.

The commercial divers themselves admit that the chief reason for the decline of the abalone is the large numbers of the shellfish that have been taken over the years by their own people. The California Fish and Game department has restricted the number of commercial licenses they grant, but no one knows how much damage has been done and exactly what measures it will now take to turn the situation around.

Some of the ab divers are trying to re-plant abalone beds that have provided previous harvests.

Win Swint and Lad Handelman are two commercial divers working out of the Santa Barbara harbor who have achieved reasonable success in the profession. Handelman was an abalone fisherman 20 years ago, before he started Oceaneering International, and he returned to the local abalone diving arena when he left Oceaneering in 1979 to form another offshore diving company. Swint has been diving abalone for almost as long as Handelman stayed away from it and for the past ten years he has been experimenting with the growing of spat (larval abalone) in fish tanks in his living room and in offshore habitats.

Under the auspices of the Department of Fish and Game and the California Abalone Association, Swint and Handelman obtained leases to a number of barren reef areas at Santa Cruz, San Miguel and San Nicholas Islands and then, under the masthead of California Sea Farms and using reseeding methods formulated by Swint, they began planting red abalone — the species most desired by commercial divers and their buyers.

"The idea is not so much to put down the abalone and return to get those same abalone later on," Handelman said. "But it's to place a population of breeding animals in a protected environment where they can reseed themselves." He explained that when the abalone reaches about two inches in length it begins to spawn, sending millions upon millions of its seed into the ocean currents. In six to ten days, the spawn will drift for miles from its release site, and the hope of the planters is that some percentage of the spawn will develop into whole new populations. "We believe in the future of the resource," said Handelman, "and we're trying to help make it happen."

The 1980 abalone harvest is reported by Fish and Game at 1.4 million pounds, compared to an average of four million pounds per year through the 1960's, and to many that means the future of the resource Handelman speaks of is in serious trouble. "There was not a reasonable management program until just recently," said Handelman. "For years there were 500 or more commercial divers operating up and down the California coast, as compared to, say, Australia, where there is one diver per 200 miles. Today, there are about 150-175 commercial licenses granted by the Fish and Game, but this cutback didn't come soon enough."

Win Swint places kelp in an abalone nursery. The young abs will feed on the algae.

photo/Bob Evans

More than 75 percent of California's commercial diving fleet is located in Santa Barbara, which is 90 miles north of Los Angeles. Figures indicate a total of perhaps 20 commercial boats working out of San Diego, Half Moon Bay, Catalina Island, Ventura and Morro Bay. By contrast, Santa Barbara has more than 100 commercial diving boats. A good deal of abalone mariculture news comes from Santa Barbara, where divers work with marine biologists on techniques for massive abalone planting.

Local seafood processors in Santa Barbara are presently providing shells to a UCSB Mariculture Foundation project which involves mixing larval abalone with ground-up abalone shells. The microscopic animals readily attach themselves to the shell particles, and

Abalone Poachers Caught

Felony conspiracy charges were filed in March in Santa Barbara Superior Court against 13 persons accused of participating in a state-wide conspiracy to market abalone illegally taken from Northern California ocean waters. The traceable loss of abalone to the state in the area was valued at more than \$231,000 by DFG investigators. But a DFG Marine Patrol Inspector said the present case, large as it is, may be only the tip of an iceberg in a conspiracy that could involve hundreds of thousands of pounds of abalone valued in the millions of dollars.

Two major investigations marked the year-long case, one a covert operation to determine who was taking abalone illegally and where and how they were being marketed. This operation also involved agents from the National Marine Fisheries Service, the Bureau of Alcohol, Tobacco and Firearms; the Mendocino County Sheriff's Office and the California Department of Justice.

Other charges filed in the case involve various violations of the Fish and Game regulations, including failure to file records with the department and avoidance of fish taxes.

the idea is that the entire swill of microscopic living abalone, sea water and shells can be simply tossed overboard in a suitable site at the offshore islands. The abalone, weighted by the shells, would conceivably drop to the bottom and begin to grow.

Meanwhile, Handelman and Swint have formed another organization called Save Our Shellfish, which is working to head off what they consider another potential disaster: the arrival of the sea

otter to the Channel Islands. Sea otters eat a variety of seafoods, including abalone. With this in mind, Handelman says, "If the sea otters are allowed in this area, our replanting program would be like growing corn for the crows."

S.O.S. advocates a state zonal management program for the sea otter, which would remove control from the federal government as established under the Marine Mammal Protection Act of 1972. Because the state has jurisdiction within the three-mile limit, it could more accurately manage the sea otter/shellfish conflict, according to S.O.S.

Conservationist groups — Friends of the Sea Otters in particular — oppose the efforts of S.O.S. in relation to the otter. The Friends have been trying to organize a transplanting of otters to San Nicholas Island, and Margaret Owings, founder of the otter group, says that San Nicholas is the only spot she knows of in California that can take a transplanted population of otters because it is a site "unthreatened by oil spills or gill nets."

S.O.S. maintains that San Nicholas is the gateway to all of the Channel Islands, and that the transplanting of otters to that particular spot is not reasonable management of either species. "If the otters are transplanted to San Nicholas," says Handelman, "that's it — that would be the end of the shellfishing industry in this area." The shellfish/otter controversy has many more arguments on both sides, and the final outcome of the conflict is still a long way off.

There's another fly in the abalone soup which assumed drastic proportions at the end of last year in Santa Barbara: poaching. The Santa Barbara divers, familiar with the abalone beds of the Channel Islands, say they know which beds have legal sized abs and which do not, and that they're finding entire beds of undersized abs ripped off. "Sometimes you'll see dozens of shells, shucked topside and thrown overboard," said Jim Colomy, a commercial diver and partner in a seafood processing firm. The illegal abalone is being sold to restaurants up and down the California coast, say both divers and processors. (See sidebar: Abalone Poaches Caught.)

High prices make poaching attractive. In 1975 a diver received \$30 to \$40 for one dozen red abalone; today he receives anywhere from \$100 to \$150, and the wholesale price of abalone is \$18.50 to \$20.00 a pound.

For some commercial divers, already limited by seasons and the weather, the poaching situation is a direct threat. If restaurants don't buy from the processors, the processors don't buy from the diver, and the diver is without his rent.

Illegal taking of abalone can result in stiff fines and the permanent loss of the commercial license, which is difficult to

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come by. Commercial divers depending on their licenses for their livelihood don't take shorts, and when the California contingency felt that the poaching needed to be checked, they participated in a watchdog program called Cal-Tip. Cal-Tip offers \$1,000 rewards for tips on illegal diving activities reported to the Fish and Game that lead to the arrest and conviction of the violator.

Commercial divers also have the problem that comes with just being in the water so much of the time. Even though successful abalone divers can make their way in the shallows, entire days underwater push them into decompression anyway. Divers wearing more than one decompression meter have still been hit in elbows, knees or shoulders at least once, and a few of them have lost the use of a muscle here or there. The very unlucky ones walk with canes or, worse, get around in wheelchairs.

Another side effect of being in the water so much is exposure to sharks. Not horn sharks, swell sharks or blues — but the great whites which roam every ocean and feed near seal rookeries. Rookeries can also produce a high yield of abalone. Most commercial divers stay away from such areas when the water isn't clear, but even so, there are those chance encounters that no one likes to think about.

Gary Johnson, an abalone diver from Santa Barbara, was diving the foul area off Point Conception in July of 1975 when he saw his first white shark. He described his reaction as "mild catatonia" — which is how most white shark encounters affect divers. Johnson estimated the shark to be 15 feet long and "as big around as a whisky barrel."

Four days later, a diver named Rob Rebstock happened to anchor his boat in the exact spot where Johnson had seen the shark, and the next thing Rebstock knew, he was in the mouth of the very shark Johnson had seen. "It took me all the way out of the water in its mouth and dropped me closer to the boat," Rebstock recalled. Rebstock was diving again in two months, but his astonished friends stayed out of the water for years.

There are other stories that commercial abalone divers tell: Win Swint was diving off a seal rookery once when a killer whale came in to feed, and amid the blood he made his way back to his boat "trying very hard not to look like a seal." Another commercial diver named Jay Worrell tells how a group of divers took up a collection to pay for his

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hospital bills after a white shark bit him in the rear end off San Miguel. Other divers talk of their boats sinking and of engines blowing up mid-channel. Add to this the problem of disappearing abalone and the poaching predicament, and people will wonder all the more why commercial divers continue to do what they do.

The divers themselves don't take time to wonder. They are the ones heading out to sea before the sun rises, talking along the way about weather and sea conditions, about foraging for food in the frontier, about bringing meat to the table and making a living off the sea. Sometimes they may not like the physical hardships all that much, but all the same they'll always love the ocean, which changes day to day. It's man, the sea, and lure of the abalone. >