Dan Haifley, Our Ocean Backyard: The philosophy of tide pools and our interconnected environment

By <u>Dan Haifley</u> | Santa Cruz Sentinel January 26, 2019 at 6:22 pm



Anemone in Monterey Bay National Marine Sanctuary (NOAA/MBNMS — Contributed)

On Saturday I was privileged to review "The Death and Life of Monterey Bay: A Story of Revival" by Stephen Palumbi and Carolyn Sotka, for an event for Friends of Aptos Library and Aptos History Museum. Because its submarine canyon plunges so deep, so quickly off Moss Landing, Monterey Bay is a relatively accessible window into a complex ocean that among other things covers over two-thirds of our planet, influences weather and absorbs excess carbon.

As in the case with of the king tides we witnessed last weekend and in December, the ocean is a powerful force for those who live in the coastal zone, not to mention those who spend time on it. It's also influenced by activities on land, such as the flow of tiny pieces of plastic, cigarette butts and organic waste that journeys through rivers and storm drains to the sea.

"The Death and Life of Monterey Bay: A Story of Revival" chronicles the destruction, then recovery, of species and habitats within Monterey Bay during the last few centuries by looking at natural changes in ocean conditions as well as changes driven by humans, such as the near destruction of the California Sea Otter and the crash of the sardine industry in the latter 1940s after having laid waste to the waters along Monterey's shoreline.

Palumbi and Sotka also spend some pages crediting the evolution of how we look at the environment through integrated ecosystems as opposed to just focusing on individual species. They do this by describing get-togethers that featured often lively conversations between friends Ed Ricketts, who wrote Between Pacific Tides and made a living providing samples from tide pools on the Monterey Peninsula to laboratories, author John Steinbeck, and their sidekick and professor Joseph Campbell.

As Steinbeck said in his book The Log from the Sea of Cortez, "It is advisable to look from the tide pools to the stars and then back to the tide pool again." Ricketts said he believed the idea that individuals behave differently alone than in a group, and that ecosystems – such as tide pools – operate based on complex relationships between individual animals and plants.

Steinbeck, the authors argue, used the model of individual versus group behavior in his novel In Dubious Battle, and Ed's understanding of interactions within tide pool communities influenced Steinbeck as he famously described the destruction of the dust bowl in The Grapes of Wrath. When I read The Grapes of Wrath as a boy I was fascinated by his description of how that environmental disaster unfolded.

Ricketts' understanding of activity between the tides was informed by observation, which made him a master in systems theory. "Ed looked into these pools and discovered the complex interactions that rules the little lives there. And the rules were intricate. Species did not form a simple food chain where snail eats algae, fish east snail, and heron eats fish," the authors wrote on page 91. "Life was affected by the environment: when and where the waves rolled in."

In other words, all living beings seek to adapt and survive. Communities, whether tide pool or human, are compelled to adjust to their environment. For example, local and state governments are working to confront changes driven by climate and ocean pollution.

One powerful tool in the management of diverse ocean systems in US waters are national marine sanctuaries. In California a network of marine protected areas have also been established, modeled on the Hopkins Marine Life Refuge enacted by the California legislature at the urging of zoologist Dr. Julia Platt, who served as the mayor of Pacific Grove.

The book chronicles Platt's fierce activism for ocean protection that resulted in the marine protected area established in 1931 along part of her town's shoreline and enlarged in 1984 and which, Palumbi and Sotka argue, supported the restoration of a coastline hit by pollution from sardine canneries, and the dearth of sea otters managing near shore kelp beds. In 2007, that reserve was added to the Lovers Point Marine Reserve.

In its penultimate chapter, the book describes how the revival of the Monterey waterfront with its empty canneries – a microcosm of Monterey Bay which in turn is a cross-cut of the world ocean — was made complete with the addition of the Monterey Bay Aquarium, a global leader in ocean conservation. From the ashes, comes recovery for life, in all its complexity.

Ocean activist Dan Haifley can be reached at dan.haifley@gmail.com. From 7-9 p.m. Feb. 21 at Samper Recital Hall at Cabrillo College, Save Our Shores and Friends of Aptos Library will sponsor s talk by the book's authors and Mark Carr. <u>saveourshores.org</u>.

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