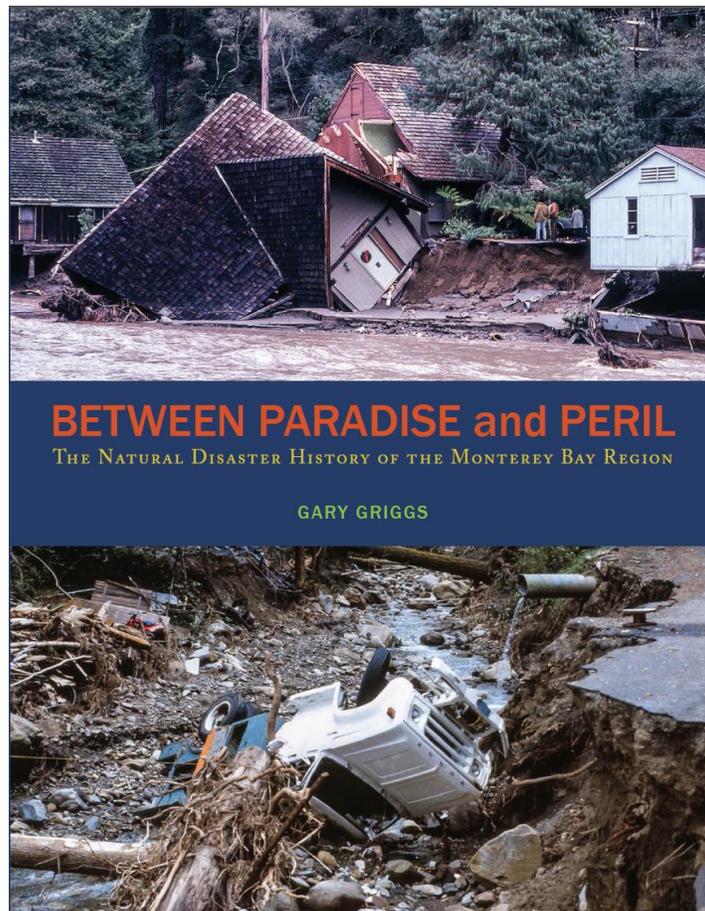


Our Ocean Backyard — *Santa Cruz Sentinel* columns by Gary Griggs, Distinguished Professor of Earth and Planetary Sciences, UC Santa Cruz.

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Natural Disasters in Our Backyard



A new book by Gary Griggs

Some people have accused me of loving natural disasters. While that's not completely true, I will admit that during my years living here and experiencing what seems like an almost unending series of natural disasters – whether earthquakes or landslides, floods or droughts, coastal storms and shoreline flooding and erosion – that these recurring events have been pretty interesting for an Earth scientist to witness and study.

While it may seem to those of you who have lived through or experienced any of these events, that we have had more than our share of major devastating natural disasters in recent decades, looking back at the historic record from the old newspapers, its pretty clear that none of what we have experienced is really new or anything different.

Flood have come with surprising frequency and inundated the same areas - Felton Grove at the Covered Bridge, downtown Santa Cruz, Soquel, Watsonville and Pajaro to name a few – again and again. El Niño events, and coastal storms with high tides and large waves have repeatedly flooded the same low-lying coastal areas, damaging and destroying both public facilities and private development at Capitola, Seacliff, Rio del Mar and those locations where East Cliff Drive dips down to sea level: Twin Lakes, Corcoran Lagoon and Moran Lake.

While we have had our share of floods, droughts have also been relatively common and are not new to central California. In the not too distant past – well hundreds of years ago - California had droughts that lasted for fifty years or longer. The difference is that today there are 40 million people in the state and billions of dollars in agriculture that feeds the nation and that depends upon a reliable source of water that no longer seems so reliable. The combined population of Santa Cruz and Monterey counties in 1900 was just 41,000; today there are about 700,000 of us.

We do have a paradise here living around Monterey Bay - the mountains and redwoods, the bay and beaches, and an exceptional climate – but it all comes with a price. There are lots of very safe places to live in the area, but there are others where you are taking your chances and it's just a matter of time until the next flood, fire earthquake, or mudflow may impact your home or neighborhood. There is a history that is important to be aware of when your largest single investment is at stake.

I've spent much of the past 50 years observing, studying, teaching and writing about these natural disasters, and over the past year or so have put these thoughts and history down in a new book.

“Between Paradise and Peril – The Natural Disaster History of the Monterey Bay Region” goes back through nearly 200 years of the area's history and covers earthquakes, tsunamis, coastal storms and shoreline retreat, rainfall and flooding,

landslides and mudflows, droughts and also the climate change that we are now experiencing and what it may mean for our future.

While property damage and destruction have historically been widespread during many of these past events, perhaps surprisingly, especially compared to any of the other risks we are exposed to on a daily basis (driving, biking, skateboarding, swimming, or texting while doing any of these), the actual loss of life – while tragic – has been relatively low.

While there are some who are deathly afraid of tsunamis, in the Monterey Bay region's roughly 200 years of reported history there has only been a single tsunami-related death. Even the Loma Prieta earthquake, which was the largest earthquake to strike the area in 83 years and that destroyed much of downtown Santa Cruz, led to the loss of just six lives.

Less than one hundred people have died as a result of natural disasters in the region over the past century – less than one person per year. Overall, we live in a relatively safe place, and our buildings - at least the newer ones - were built to much more stringent standards than they were in the past. You can still, however, buy a house in a risky location.

The new book is available at the Marine Discovery Shop at the Seymour Marine Discovery Center, the Baytree Bookstore at UCSC, and at Bookshop Santa Cruz. I will be giving a talk about the book at Bookshop Santa Cruz on the evening of November 8th and at the Seymour Marine Discovery Center on the night of November 29th and you are all welcome.