

UC SANTA BARBARA

THE *Current*

March 11, 2025

[Harrison Tasoff](#)

Award-winning documentary explores the unfinished tale of DDT

“Out of Plain Sight” is not a story with a cheerful ending. Or truly an ending at all. The documentary covers the discovery and investigation of DDT dumping off the coast of Southern California led by Professor [David Valentine](#) at UC Santa Barbara and journalist Rosanna Xia at the Los Angeles Times. The [investigative feature](#) made national news, generating public outcry and congressional investigation.

The movie, produced by Xia and brothers Austin and Daniel Straub, made its West Coast debut at the 2025 Santa Barbara International Film Festival (SBIFF), where it won the Audience Choice Award.

The documentary is resonating with audiences across the country. It was the opening-night film at the Slamdance Film Festival in Los Angeles the following week and is an official selection of the Cleveland International Film Festival in March and Miami Film Festival in April. It will also be the closing-night movie at the Environmental Film Festival in Washington, DC, where it has already won the 2025 Shared Earth Foundation Award for Advocacy.

Much like the investigation itself, “Out of Plain Sight” raises far more questions than it answers. The producers expertly wove the tangled, frayed fibers of a decades-long story into a compelling narrative. There’s no sugar coating to the film, nor a succinct lesson at the end. But it’s important medicine at a time when public health and environmental safeguards are under attack.

“[Our] hope for this film is that it is the beginning of a conversation,” said director and producer Xia. “The film ended up being about the questions we should be asking, and that people will continue to ask, honestly, for generations.”

A concise summary of a complex story

The film opens with a surprise discovery on the seafloor between Catalina Island and the Palos Verdes Peninsula in 2011. Professor Valentine devotes a contingency day on a research cruise to investigate anomalies on the seafloor topographic map. As the remotely operated vehicle approaches the target, a corroded barrel looms out of the darkness.

The movie then cuts to archival footage spanning the development, popularization, investigation, and ultimately, the banning of the pesticide DDT. “We have 80 years of history to catch people up on,” said Austin Straub, the film’s cinematographer, editor and producer.

“I was shocked [... that] this footage was not hard to track down,” he continued. “When I first read this story, I thought this was done under cover of night. [...] Then watching all this footage I’m like, ‘Oh no, we thought this was totally okay back then.’”

The film quickly answers the most obvious question: Why can’t we simply dredge up all the barrels, Xia asks Valentine. Not only are the corroded containers likely to burst when hauled up from the depth, he says, but much of the toxins have already escaped. What’s more, he and his colleagues have yet to find the boundaries of the dumping area.

The filmmakers then dive right into the science of what’s going on and how we’re finding out, exploring how DDT is becoming remobilized and concentrated as it moves up the food chain. Valentine has detected the compound in seafloor sediment, and professors Lihini Aluwihare, at Scripps Institution of Oceanography, and Eunha Hoh, at San Diego State University, have found the chemical in marine invertebrates and fishes, particularly lanternfishes, a group of small fishes known for their daily migrations between the deep ocean and the surface.

With each fish eating tens of thousands of invertebrates, and each predator eating tens of thousands of fish, DDT becomes ever more concentrated as it travels up the food chain, with dire health consequences for animals near the top. “The sea lions off our coast have the highest rate of cancer of any wildlife species in the world,” said scientist and veterinarian Alissa Deming at a panel discussion after one of the film’s screenings at SBIFF. She and her staff at the Pacific Marine Mammal Center have been inundated with sickly sea lions.

Even farther up the food chain, condor eggs still show the telltale effect of DDT more than 50 years after production of the chemical ceased. Their fragile eggshells are a chapter straight out of Rachel Carson’s “Silent Spring.” This begs the question, what effect does it have on the world’s apex predator: humans?

Under the hood

The filmmakers leaned into showing the process that brought this issue to light. “It has been really meaningful to show the rigorous yet heartfelt dedication that goes into both science and journalism — from researchers like Dr. David Valentine and the many teams working tirelessly on this issue, to journalists like Rosanna who inspire us to re-examine our past and how it continues to impact our relationship with the environment today,” said Daniel Straub.

“This film really gets under the hood of science in a way that I think a lot of films don’t do,” Valentine added. “It will be useful for people to see that science really takes a consistent, persistent effort. It requires continuous support to enable the sort of science that needs to be done.”

Basic research, long-term monitoring and collection curation are far from the flashiest of scientific endeavors, but they pay immense dividends on the initial investment. “All these things that can sort of look wasteful until you really need them,” said director, producer Daniel Straub, “and then you would pay anything to get them.”

Scientists tend to focus on making discoveries and communicating these findings to the small groups of experts that care about the details. “The stories we tell through our publications are dense and formulaic,” Valentine said. “Being part of this film provided an opportunity to help tell a scientific tale in a rich and immersive way,

with a really talented team of people who know how to relate the nuance of science into something compelling for everyone.”

A lasting legacy

The scientists and filmmakers alike emphasize that the legacy of deep ocean dumping is far larger than we could have imagined. For one, researchers still don't have an idea of the scope of the problem: It's more than just one site, more than just Southern California, and more than just DDT.

DDT is also a proxy for the behavior of many other industrial, household, pharmaceutical and cosmetic chemicals in the environment. And it could be a harbinger of what may yet come. Tens of thousands of new chemicals enter the market each year, explained Hoh. But rather than take precautions, the U.S. treats most of these as “innocent until proven guilty.”

Unfortunately, that proof often requires years of research, millions in funding and untold harm to the public. And despite landmark legislation and revelations about new compounds, very little progress has happened, Hoh laments.

Scientists coined the term “forever chemical” (FC) to describe particularly stable fluorine-carbon compounds. DDT consists of hydrogen, chlorine and carbon, so it doesn't quite fit the acronym, Valentine explained at the panel discussion. “Then I realized I solved this problem early on,” he said. “It was actually a ‘holy crap chemical.’”

Human health studies have revealed how pernicious DDT truly is. Even those born today have been exposed to DDT by previous generations. Any pregnant woman in the 1940s or '50s may have been exposed to the pesticide, along with her developing child, and the egg cells that could eventually become her grandchildren.

DDT has been linked to fertility issues, obesity and brain disorders like dementia. And its correlation with cancer is well established. “Cervical cancer [...] is one of the most common cancers [in women,] only followed by breast cancer,” Deming said during the discussion. “Those two cancers are the two cancers that we're seeing in our sea lions. And it just parallels and mirrors human health and public health issues so closely.”

What to do, what to do

The Valentine lab is currently working to map the extent of contamination. Dumping often occurred outside of the designated areas, the researchers have discovered, leaving scientists still searching for the boundaries of the pollution.

They are also investigating the microbes and processes that break up halogenated organic contaminants like DDT. “If we can understand how it’s happening, maybe somewhere down the road there might be something we can do to speed it up,” Valentine said. But that is a long way off. Much of the DDT hasn’t broken down since it settled onto the seafloor, where it’s now easily stirred up by trawling, undersea cables and marine animals.

DDT also wasn’t the only waste disposed of off the coast. “I have spent a lot of time weeding through historical records, investigations, regulations, reports and images to find information on the actors responsible for DDT-laden waste disposal into the deep ocean,” said Jacob Schmidt, a doctoral student in the Valentine lab.

Scientists have to identify the scope of the problem before we can even begin to devise solutions. But right now, the researchers are worried about the country’s basic scientific capability. “The uncertainty and chaos presently hitting our scientific agencies and our broader scientific enterprise is already undercutting our scientific productivity,” Valentine said. “It’s demoralizing our students and trainees. Talented young scientists are losing hope for their future in science and looking elsewhere.”

Valentine hopes that the film’s key themes begin to take hold in our social discourse. “Themes like: the importance of science to disentangling real world problems, the importance of sustained support for maintaining archives, and an appreciation for the hard work that scientists do,” he said. “If people can echo these themes loud enough, then maybe we can help to adjust our present course.”

Tags

[Health and Medicine](#)

[Ocean and Beaches](#)

Media Contact

Harrison Tasoff

Science Writer

(805) 893-7220

harrisontasoff@ucsb.edu

About UC Santa Barbara

The University of California, Santa Barbara is a leading research institution that also provides a comprehensive liberal arts learning experience. Our academic community of faculty, students, and staff is characterized by a culture of interdisciplinary collaboration that is responsive to the needs of our multicultural and global society. All of this takes place within a living and learning environment like no other, as we draw inspiration from the beauty and resources of our extraordinary location at the edge of the Pacific Ocean.