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<http://www.montereycountyweekly.com/archives/2009/2009-Jul-09/the-contaminantdisease-connection-needs-to-be-explored-more-fully/1/@@index>

Otter Insanity

The contaminant-disease connection needs to be explored more fully.

By [Allison Ford](#)

There's been a lot of media attention about sea otters since a recent U.S. Geological Survey report that the population along the California coast has entered another decline, faster than any time since the late '90s. Everyone is asking the same questions: What's causing the decline, and what can we do about it?

These are difficult questions, and narrowing the answer down to a 10 second sound bite can be tricky. Everyone, from government officials and scientists, to advocates, like us, seem to agree that the preponderance of disease is linked to the quality of water that otters are swimming in.

That understanding hasn't translated to easy answers. A direct causal chain is hard to find, and ambiguity abounds. Some researchers emphasize the lack of a link between human caused pollution and its effect on sea otters. This echoes a refrain that pertains to all environmental problems: how sure do we have to be that our actions are harmful before we act?

Here's what we DO know. Otters have unusually high levels of contaminants found in their tissues. Contaminants of concern include pesticides such as DDT, tributyltin, a chemical used in boat paint, and PCBs. Concentrations were higher in sea otters found along the California coast than in their northern counterparts.

WHAT GOOD IS AN INDICATOR SPECIES IF WE DON'T RESPOND?

In addition to chemical contamination, we also know that otters are dying of a mix of diseases, trauma such as shark bite, and emaciation. There is no one disease that is preponderant (although between 30 to 50 percent of otters die from disease of one sort or another) but disease, trauma and emaciation all suggest low general health. Healthy otters can fight off disease, better avoid sharks, boats and dangers, and forage for enough food. Unhealthy sea otters swimming in waters that are teeming with hazards seem less able to do any of those things.

Scientific evidence, past experience and logic bring us to the conclusion that runoff is a key piece of the puzzle.

In the absence of 100 percent certainty, we need to use the best available science to make some deductions. Sea otters are one of the most studied species in the world; we should be able to do this. And scientific evidence points us in the right direction. Studies have shown that mink, one

of the sea otters' closest relatives, experience immune problems when exposed to many of the same chemicals that are found in sea otter tissue. Studies on harbor seals and killer whales tell us that marine mammals across the board are being burdened by contaminants, and further studies suggest that such contaminants play a role in marine mammal die offs.

Everyone seems to agree that pollution is a problem – there's a lot of runoff carrying a lot of contaminants into the ocean. And no one in the marine environment is going to suffer if we start to clean it up. In fact, a whole lot of species would benefit from cleaner water. Monterey and coastal communities all along the sea otter range are bound together by their reliance on the coastal ocean. The services that it provides us are endless, but they are not necessarily without limits. And all of us – beach goers, fishers, recreational users, businesses dependant on tourism – benefit from keeping the waters clean, and the ecosystems functioning.

Sea otters make the news because they are cute and iconic to Monterey. But they also make the news because they are an important indicator species. When something is wrong with otters, something is wrong in the ocean. What good is an indicator species if we don't respond to the signals it's giving us?

Emerging research can help us refine our policy. It should not, however, be an excuse to forever postpone action. Let's keep the debate alive, but while we're talking, start to take some necessary actions. On behalf of sea otters, and all marine-dependent life, it's time we got our feet wet in some cleaner water.

ALLISON FORD is executive director of the Otter Project.