

NON-TECHNICAL ABSTRACT: *(State in layman's terms the application's broad, long-term objectives and specific aims, making reference to the potential public benefits of the project.)*

The presence of potentially toxic chemicals in marine species is an emerging topic in marine conservation and ocean environmental monitoring. Chemical compounds have been linked to increase the morbidity or mortality of exposed animals. Persistent and bioaccumulative organic compounds are also key to environmental monitoring across large ocean regions. Recent studies inform us that such compounds come from anthropogenic as well as natural sources. Measuring the body burden of a broad suit of chemicals is a powerful approach to understanding impacts of chemical contaminants on health of marine species and the ocean environment. This study will determine the occurrence of persistent organic compounds of both anthropogenic and natural origins in marine species in southern California coastline. Results from this research will serve as the foundation for future studies of the effects of existing organic compounds on the health of the ocean environment and marine megafauna, and its potential impact on human health in southern California. Our project also uses the focal marine species as sentinels or indicators of the health of marine ecosystems. The chemical compounds on which we focus, persistent organic compounds, pose a risk to humans as well. Results from this study will have direct relevance to assessing the health risks that persistent organic compounds pose to humans.