

SCCWRP Annual Report 2013

Occurrence of contaminants of emerging concern along the California coast (2009-10) using passive sampling devices

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ABSTRACT

Three passive sampling devices (PSDs), polar organic chemical integrative samplers (POCIS), polyethylene devices (PEDs), and solid-phase microextraction (SPME) samplers were used to sample a diverse set of chemicals in the coastal waters of San Francisco Bay and the Southern California Bight. Seventy-one chemicals (including fragrances, phosphate flame retardants, pharmaceuticals, PAHs, PCBs, PBDEs, and pesticides) were measured in at least 50% of the sites. The chemical profile from the San Francisco Bay sites was distinct from profiles from the sites in the Southern California Bight. This distinction was not due to a single compound or class, but by the relative abundances/concentrations of the chemicals. Comparing the PSDs to mussel (*Mytilus* spp.) tissues, a positive correlation exists for the 25 and 26 chemicals in common for the PEDs and SPME, respectively. Diphenhydramine was the only common chemical out of 40 analyzed in both POCIS and tissues detected at a common site.

Full Text

http://ftp.sccwrp.org/pub/download/DOCUMENTS/AnnualReports/2013AnnualReport/ar13_049_059.pdf