

Marine chemist says 'not so fast' to quick oil detection method

May 28 2008

A new method for assessing environmental contamination after oil spills is in danger of being applied in situations where it doesn't work and might produce false conclusions, a scientist at Woods Hole Oceanographic Institution (WHOI) has warned.

Private firms and government agencies have recently started using long strands of absorbent polypropylene snares, also called “pom-poms,” as a means to check for contamination of the seafloor in the wake of an oil spill. The method is becoming popular because it is rapid and low-cost.

But according to WHOI marine chemist Christopher Reddy, the approach may give a false sense of security. In a recently published letter to the *Marine Pollution Bulletin*, Reddy notes that while the pom-pom method is effective in locating areas where excessive amounts of oil have sunk to the bottom, it does not necessarily identify the fractions and compounds of oil that can linger in sediments and have long-term impacts on ecosystems and public health.

Following a 2004 oil spill in the Delaware River, emergency response crews employed the new pom-pom method to quickly determine the locations of large oil patches on the river floor. The information was invaluable for the emergency response and cleanup.

After the M/V Cosco Busan oil spill in San Francisco Bay in November 2007, the pom-pom method was used again. But this time, the goal was to determine if sediments near the Port of Oakland were safe to be

dredged and re-used in restoration projects.

“This approach is flawed,” Reddy wrote. “It relies on the assumption that the lack of visible oil on the snares...indicates a total lack of oil contamination in the sediment...While testing of sediments with snares delivers rapid, low-cost data, it is only an indicator of gross contamination.”

“Before this approach becomes standard practice for determining whether sediments have been contaminated at levels that may impact ecosystems,” Reddy added, “prudence dictates much more rigorous testing of the test itself.”

Source: Woods Hole Oceanographic Institution

Citation: Marine chemist says 'not so fast' to quick oil detection method (2008, May 28)
retrieved 27 April 2024 from <https://phys.org/news/2008-05-marine-chemist-fast-quick-oil.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.