

RICHARD C. THOMPSON

PLASTIC DEBRIS IN THE OCEAN

Are there solutions to this global environmental problem?

Tuesday, October 11, 2016, 7:00 p.m.
100 Bell Museum Auditorium

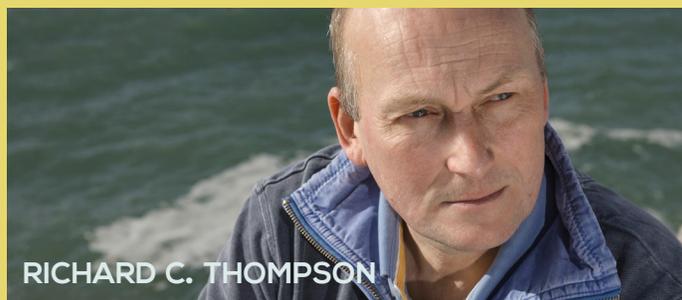
FREE admission with registration:
<http://z.umn.edu/covestrolecture16>

 Center for
Sustainable Polymers

CHALLENGE: Finding solutions to the growing environmental problem of plastics in our oceans.

MARINE DEBRIS is a growing environmental problem. It is widely distributed at the sea surface, on the sea bed, and on shorelines. About 75 percent of this litter is plastic. Nearly 700 species are known to encounter marine litter, with many reports of physical harm resulting from entanglement in and ingestion of plastic debris.

We acknowledge plastic litter does not belong in the ocean. Numerous societal benefits that are derived from everyday use of plastics can be achieved without emitting plastic waste into the environment. About 8 percent of world oil production is currently used to make plastic items; we need to change the way we produce, use and dispose of plastic items. A solution to two major environmental problems, our non-sustainable use of fossil carbon (to produce plastics) and accumulation marine litter, may lie in utilizing end-of-life plastics as a raw material for new production.



RICHARD C. THOMPSON

RICHARD C. THOMPSON is professor of Marine Biology at Plymouth University, UK. He specialises in the ecology of shallow water habitats. Much of his work over the last decade has focused on marine debris with numerous publications on this topic. In 2004, his team reported on the presence of microplastics in the environment in the journal *Science*. Subsequent research examined the extent to which microplastics were retained upon ingestion and potential for microplastics to transport pollutants to organisms. He is a co-author of the European Union Marine Strategy Framework Directive text on marine litter and has recently prepared reports on this topic for the United Nations Global Environment Facility. In 2014, he presented his research to the U.S. Secretary of State John Kerry at his Our Ocean meeting in Washington. His recent research contributed to parliamentary discussions on legislation to prohibit the use of microbeads in cosmetics.

<https://www.plymouth.ac.uk/research/marine-litter>