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News

## Marine microbes digest plastic

A 'little world' eating ocean garbage might be a mixed blessing.

Gwyneth Dickey Zaikab

Little known about biodegradability of petroleum-deriving polymers/plastics. PE,PP,PVC,PS

### **BIOCLEAN Project: 10WPs - Focus existing Microorganisms and Enzymes**

Areas: Landfills, terrestrial and aquatic environments.

- Use naturally-occurring plastic-degrading mixed and pure cultures on wasted plastics.
- Isolate & select / Characterize the best / Pre-treatment of plastics (UV, Ozone,...) / Pilot-scale bio-tech process / Develop & Demonstrate bioaugmentation in seawater & full-scale composting facility
- Environmental & economic evaluation of developed processes and strategies
- Result: A collection of well understood and useful bacteria, fungi and enzymes able to degrade/transform PE, PP, PS and PVC polymers and plastics in existing DUMP places
- **Eco-efficient pilot-scale & field validated biotechnological solutions to degrade plastic wastes in facilities and environment.**

University Bologna + 19 Partners // Q4/2012 – Q3/2015