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Using habitat model approach to predict jellyfish blooms.

Authors: Sévrine Sailley, Lauren Biermann, Nick Selmes, Steve Groom

Abstract
Jellyfish blooms are sudden events that can have profound effect on the coastal and open sea infrastructure they come in contact with. Using data long term time series we defined the environmental niche that leads to bloom occurrences. The environmental niche was defined using environmental variables that can be obtained through remote sensing (e.g. sea surface temperature, primary production). The habitat model was built using GAM (General Additive Model), checking for relevance of environmental variables, and any significant time lag. The best GAM is then tested against part of the time series before being applied to past remote sensing data in time and area of know jellyfish bloom event. The presentation will show the process of defining the habitat model and whether it could have successfully provided an early warning for past bloom events.

Keywords:
jellyfish, jellyfish bloom, habitat modelling,

Contact author:
Sévrine Sailley, Plymouth Marine Laboratory, Plymouth, United Kingdom
Email: sesa@pml.ac.uk
Phone: +44-1752-633434
Twitter: @Sev_Sailley @PlymouthMarine