

# Coastal storms have long-reaching effects, study says

January 25 2012

---

Coastal storms are known to cause serious damage along the shoreline, but they also cause significant disruption of the deep-sea ecosystem as well, according to a study of extreme coastal storms in the Western Mediterranean published in the Jan. 25 issue of the online journal *PLoS ONE*.

The researchers, led by Anna Sanchez-Vidal of the University of Barcelona in Spain, identified a storm in Dec. 2008 as the most extreme storm in the area over the last 25 years, and found that it resulted in major redistribution of marine organic carbon associated to clay particles from shallow to deep water. This injection of carbon helps support life in the deeper water and boosts carbon sequestration, the authors write.

Despite the importance of such events for deep-sea ecosystems, however, the severe damage to coastal environments must also be taken into account, and both of these factors must be considered when considering how human-induced climate change might alter the overall [ocean ecosystem](#).

**More information:** Sanchez-Vidal A, Canals M, Calafat AM, Lastras G, Pedrosa-Pa`mies R, et al. (2012) Impacts on the Deep-Sea Ecosystem by a Severe Coastal Storm. *PLoS ONE* 7(1): e30395. [doi:10.1371/journal.pone.0030395](https://doi.org/10.1371/journal.pone.0030395)

Provided by Public Library of Science

Citation: Coastal storms have long-reaching effects, study says (2012, January 25) retrieved 24 May 2024 from <https://phys.org/news/2012-01-coastal-storms-long-reaching-effects.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.