| EGU.eu | | EGU Journals | Contact |

Home

Online Library

- Recent Papers
- Volumes
- Library Search
- Title and Author Search

RSS Feeds

General Information

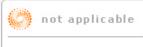
Submission

Review

Production

Subscription

Journal Metrics



SCOPUS SNIP 0.287

SCOPUS SJR 0.054

■ Definitions 🗗



■ Volumes ■ Contents of Volume 26

Adv. Geosci., 26, 99-103, 2010 www.adv-geosci.net/26/99/2010/ doi:10.5194/adgeo-26-99-2010 © Author(s) 2010. This work is distributed under the Creative Commons Attribution 3.0 License.

The morphodynamic responses of artificial embayed beaches to storm events

E. Ojeda¹, J. Guillén¹, and F. Ribas^{1,*}

¹ Institut de Ciències del Mar (CSIC), Passeig Marítim de la Barceloneta 37–49, 08003 Barcelona, Spain

*current address: Department of Applied Physics, Escola Politècnica Superior de Castelldefels, Universitat Politècnica de Catalunya, Esteve Terradas 5, 08860 Castelldefels, Spain

Abstract. The morphological changes caused by storm events in two Barcelona beaches were recorded using video monitoring techniques during the period 2001–2006. Changes in shoreline position and configuration and submerged bar position and shape were analyzed during the 25 major storm events that occurred during the study period. Beach responses to storms were grouped into three categories: shoreline advance or retreat (including rotation), sandbar migration and/or configuration change (linear or crescentic shape) and formation of megacusps. This work provides examples of the differential adaptation of both beaches to the same storm and of some unexpected morphological responses of both beaches. The response of the beach to storm events is not straightforward because wave conditions are not the only relevant parameter to be considered. In particular, in such embayed beaches it is crucial to take into account their specific morphodynamic configuration prior to the storm.

■ Full Article in PDF (PDF, 3333 KB)

Citation: Ojeda, E., Guillén, J., and Ribas, F.: The morphodynamic responses of artificial embayed beaches to storm events, Adv. Geosci., 26, 99-103, doi:10.5194/adgeo-26-99-2010,

2010. ■ Bibtex ■ EndNote ■ Reference Manager ■ XML



Search ADGEO

Full Text Search

Title Search

Author Search

News

Please Note: Updated Reference Guidelines

Recent Papers

01 | ADGEO, 22 Nov 2010: Tropopause and jetlet characteristics in relation to thunderstorm development over Cyprus

02 | ADGEO, 22 Nov 2010: Probabilistic prediction of raw and BMA calibrated AEMET-SREPS: the 24 of January 2009 extreme wind event in Catalunya

03 | ADGEO, 15 Nov 2010: Investigation of trends in synoptic patterns over Europe with artificial neural networks