The following supplement accompanies the article

Wave-modulation of mussel daily settlement at contrasting rocky shores in central Chile: topographic regulation of transport mechanisms in the surf zone

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To compare our slope estimates calculated through the relationship between wave height and surf zone width with bathymetric contours these were obtained from the General Bathymetric Charts of the Oceans (GEBCO) dataset with 1 minute resolution (http://www.gebco.net/data_and_products/gridded_bathymetry_data/, Fig. S1). For the pixels corresponding to ECIM and Punta Lobos slopes were 0.0318 and 0.0168 respectively, which are close to our estimates based on Google Earth images (0.051 and 0.0112).

On the other hand, a high resolution bathymetric grid was obtained for the area around ECIM with a MX Aquatic Habitat Echosounder (http://www.biosonicsinc.com/products/mx-aquatic-habitat-echosounder/) mounted on a 8m boat (Fig. S2). This grid allowed the calculation of the slope across the same 3 transects used to infer the slope using the surf width method with Google Earth images. Thus, the slopes along these 3 200m transects were considered as replicates in an analysis of variance with method as factor with two levels (real bathymetry vs surf zone width method). As variances were found to be heterogeneous, slopes were log - transfomed for the analysis. There were no significant differences between mean slopes obtained through the two methodologies ($p=0.1033$, Fig. S3) which yielded values around 0.05.

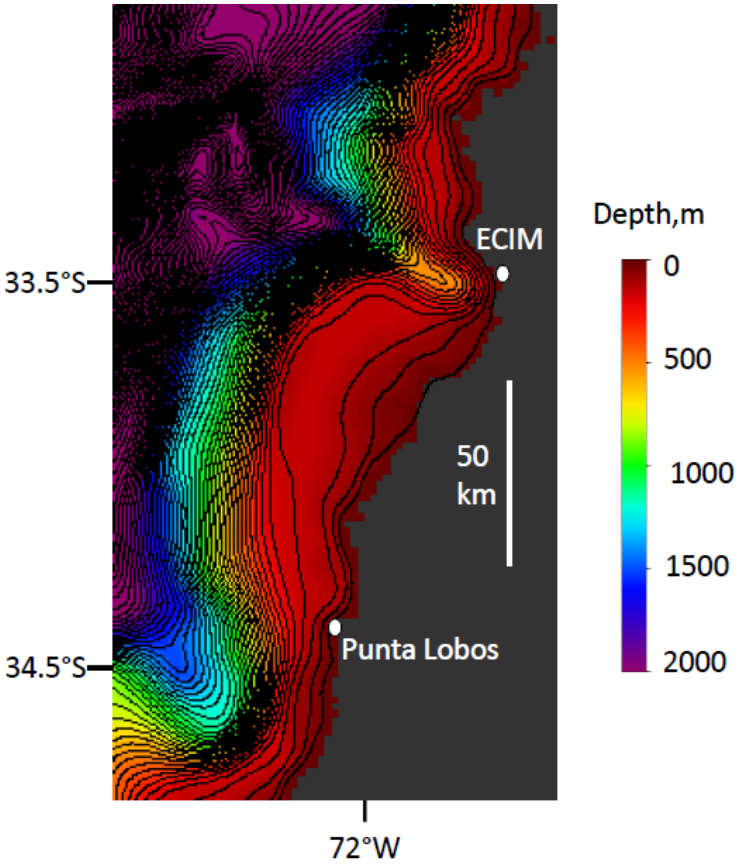

Fig. S1. GEBCO bathymetric grid for Central Chile. Isobaths every 100m are represented.

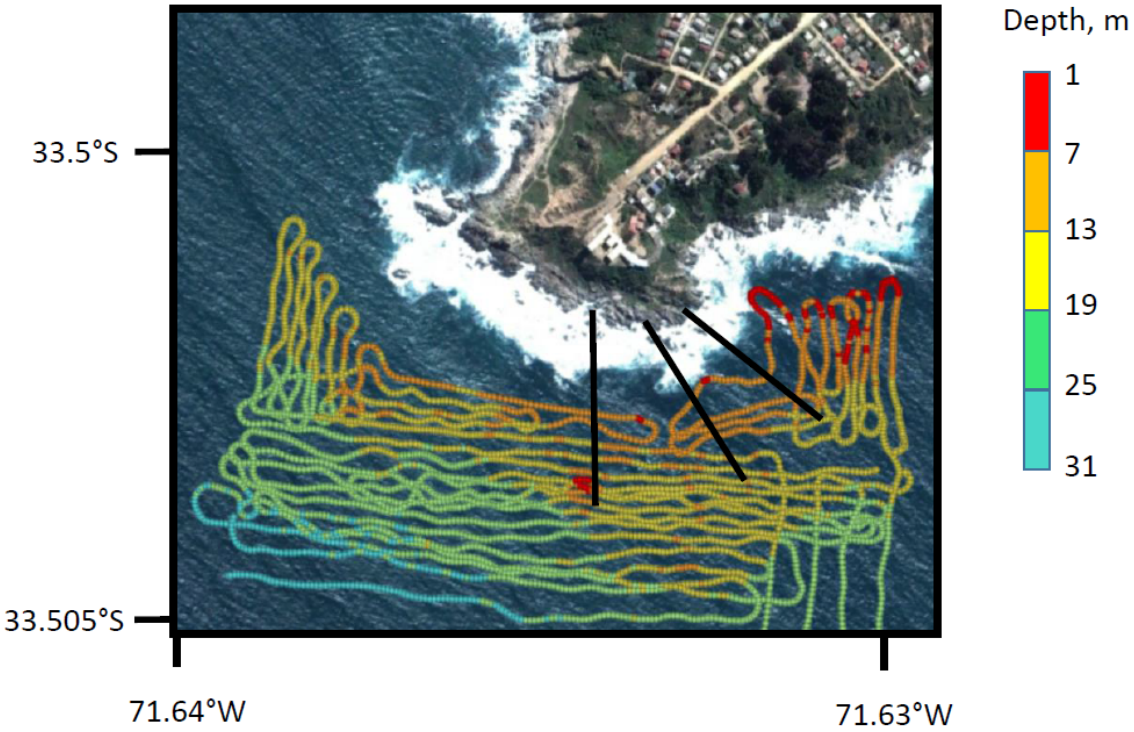

Fig. S2. High resolution bathymetric grid obtained with the MX Aquatic Habitat Echosounder. 200m-transects along which slope estimates were obtained are shown with dark lines.

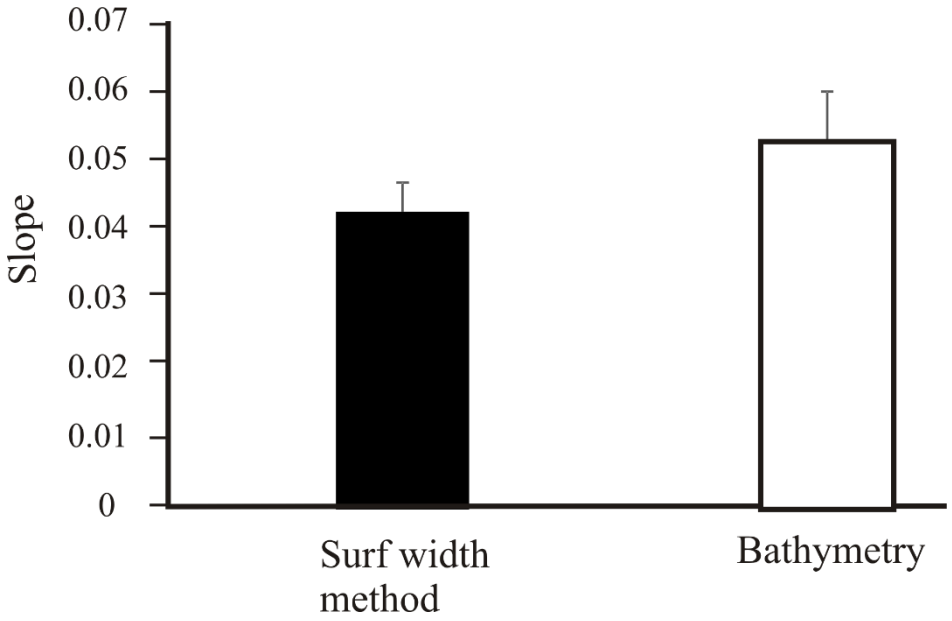

Fig. S3. Mean slope estimates at ECIM obtained with the surf zone method and a real high resolution bathymetric grid. Bars stand for standard deviations.