SUPPLEMENTAL MATERIALS

Influence of Belowground Biomass on Barrier-Island Evolution during Storms:
A Computational Parameter Study

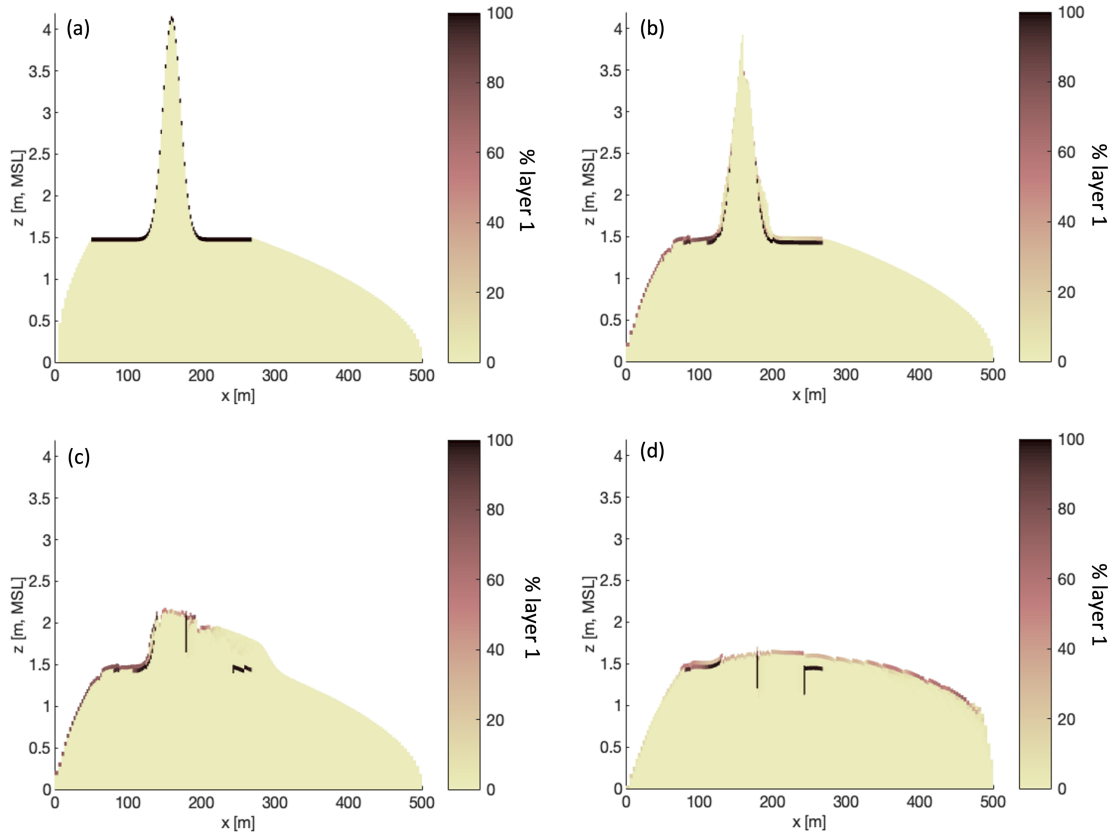Jennifer L. Irish, Wei Cheng, Robert Weiss, Stephanie M. Patch, and Megan A. Beever

Figure S1: Simulated barrier-island profiles and percentage of material initially in the top bed layer distributed to other bed layers when $z_d = 4.2$ m, $x_c = 159$ m, $d_{50} = 0.4$ mm, $\Delta z_{gl} = 5cm$ for initial profile (a), profile after 3.0 hours (b), profile after 3.5 hours (c), final profile (d).

Table S1: XBeach model settings for sediment layers and avalanching.

Parameter Name	Value Used (default value shown in parentheses)
(1)	(2)
Number of sediment classes, ngd	2 (default = 1)
Number of sediment class layers, nd	10 (default = 3)
Thickness of sediment class layers, dzg	0.05 m (default = 0.10 m)
Sediment density, $rhos$	2650 kg/m^3 (default = 2650 kg/m^3)
Porosity, por	0.4 (default = 0.4)
Morphological acceleration factor, $morfac$	1 (off)
Critical avalanching slope above water, $dryslp$	1.0 (default = 1.0)
Critical avalanching slope under water, $wetslp$	0.1 (default = 0.30, XBeach manual; 0.15, BOI)
Water depth at interface from $wetslp$ to $dryslp$, $hswitch$	0.1 m (default = 0.1 m)