Coastal Dune Ecomorphodynamics



Presenter: Dakota Fee Mentor: Peter Ruggiero College of Earth, Ocean, and Atmospheric Sciences

One Word, Three Definitions

- Eco
- Morpho
- Dynamics



A dune taken from the toe (bottom front of dune) in Pacific City

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The program MATLAB: Valuable for converting data formats and creating plots, images, etc.

Methods: To Walk, to Ride, to Extrude



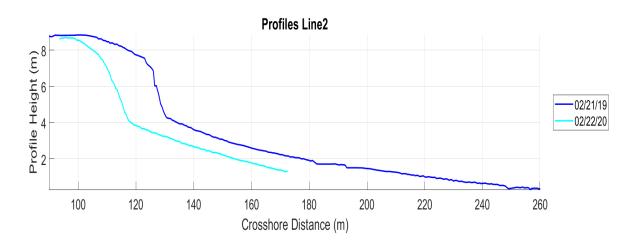
Extruding sand process to bag and track depth of sand cores Photo taken by

John S.



For bathymetry

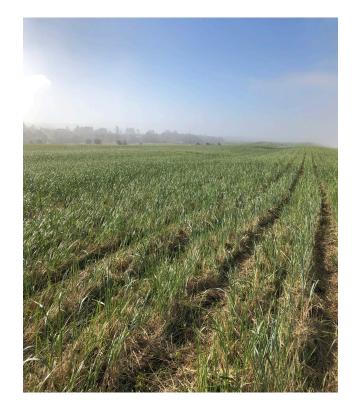
Results: Cross-Shore Profiles



Cross-shore profile of the path walked on transect 2, showing change in topography.



An eroded dune from Feb. 2020. Photo taken by Meredith L.



Dune grasses mowed in Washington. Photo taken by John S.



Not even one full days worth of sand collections. Photo taken by John S.

The full safety outfit for bringing the jet skis in and out of the water

Acknowledgments

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