Coastal Erosion Planning and Response Act (CEPRA) Project

Seaweed Enhanced Sand Dunes

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TEXAS GENERAL LAND OFFICE
ESTABLISHED 1836

GALVESTON
ISLAND
Park Board of Trustees

TEXAS A&M UNIVERSITY
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MOTIVATION

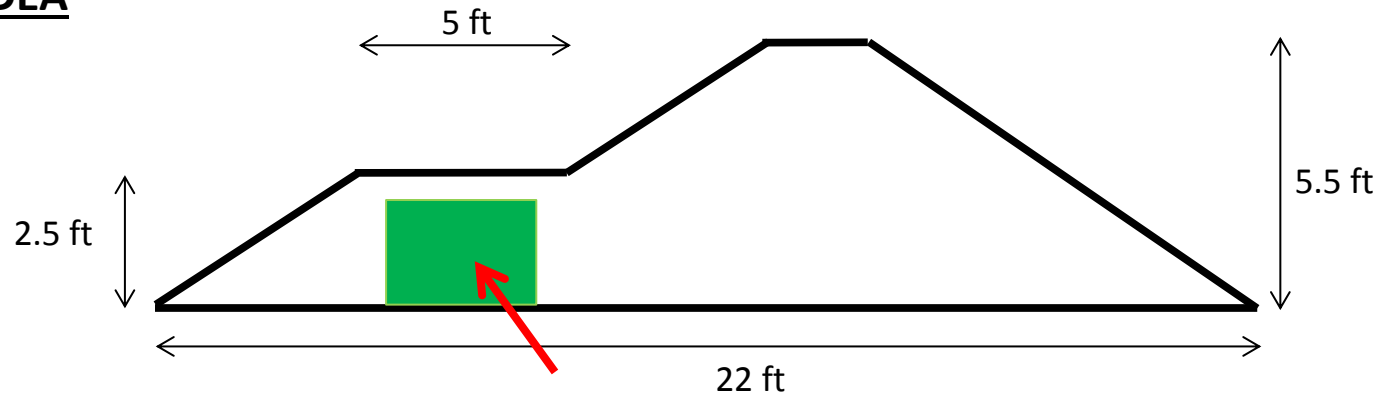
Sargassum

Lack of Dune Protection

Heavy Sargassum Landings

Management Practice

PROJECT IDEA



SEABALES (Compacted Sargassum)

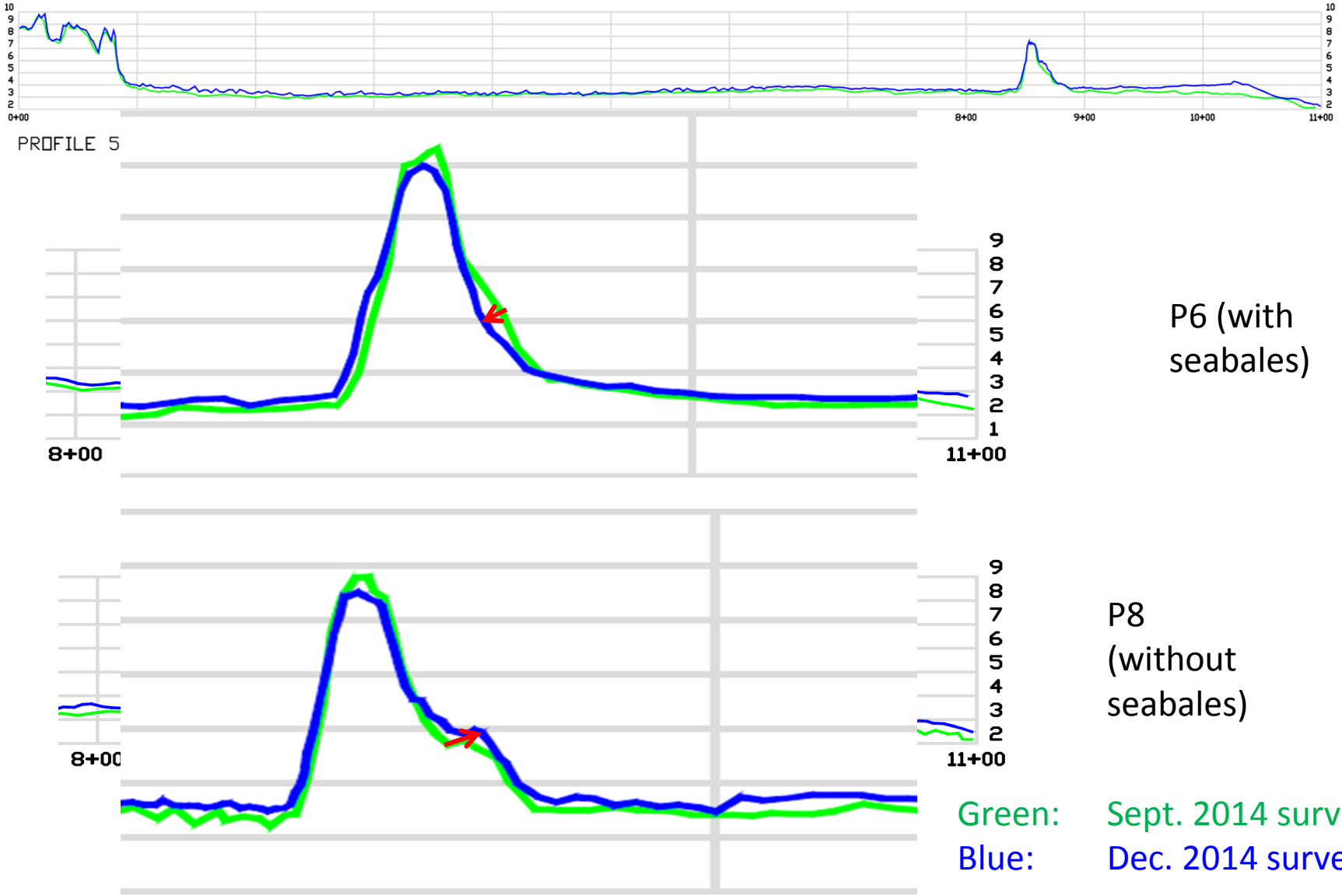
What's a Sea Bale?

We made about 120 of these total, this was the first.

Bales were positioned in front of the dune and then buried in sand.

Each Bale was about 2.5 ft x 2.5 ft x 2 ft. They weighed around 150 lbs. So a total of around 20,000 pounds of seaweed went into a pretty compact area.

PROFILE SURVEYS



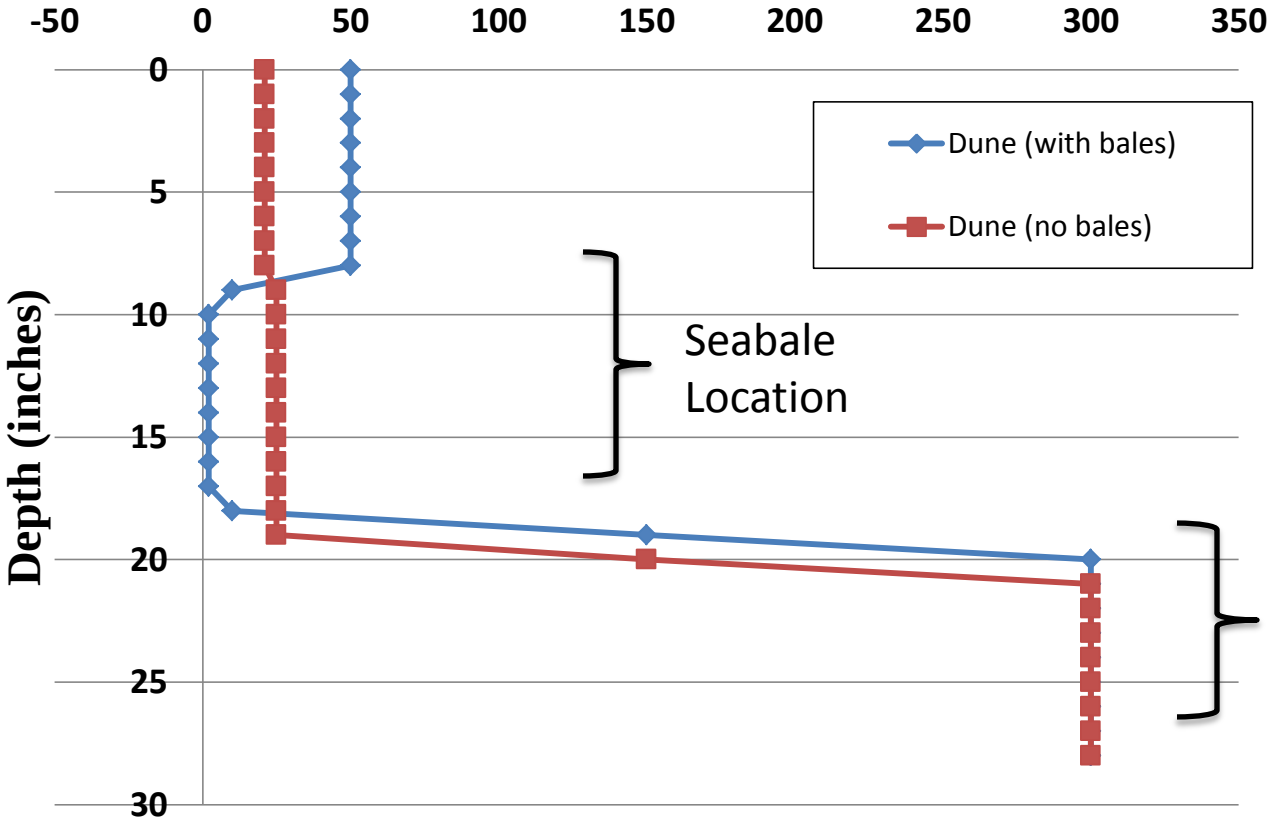
P6 (with seabales)

P8 (without seabales)

Green: Sept. 2014 survey

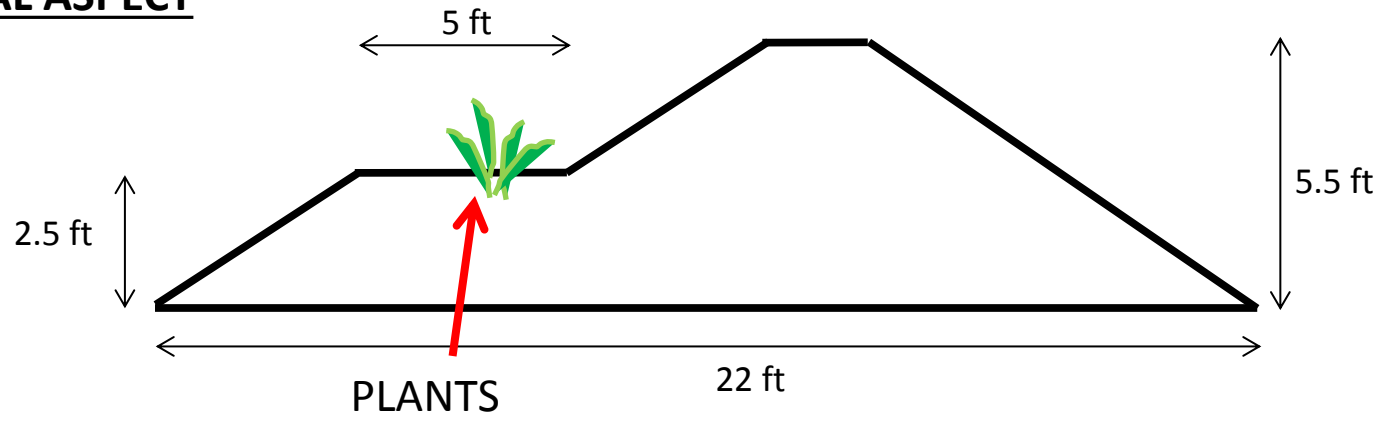
Blue: Dec. 2014 survey

PENETROMETER TESTING



Data collected in Sept. 2014

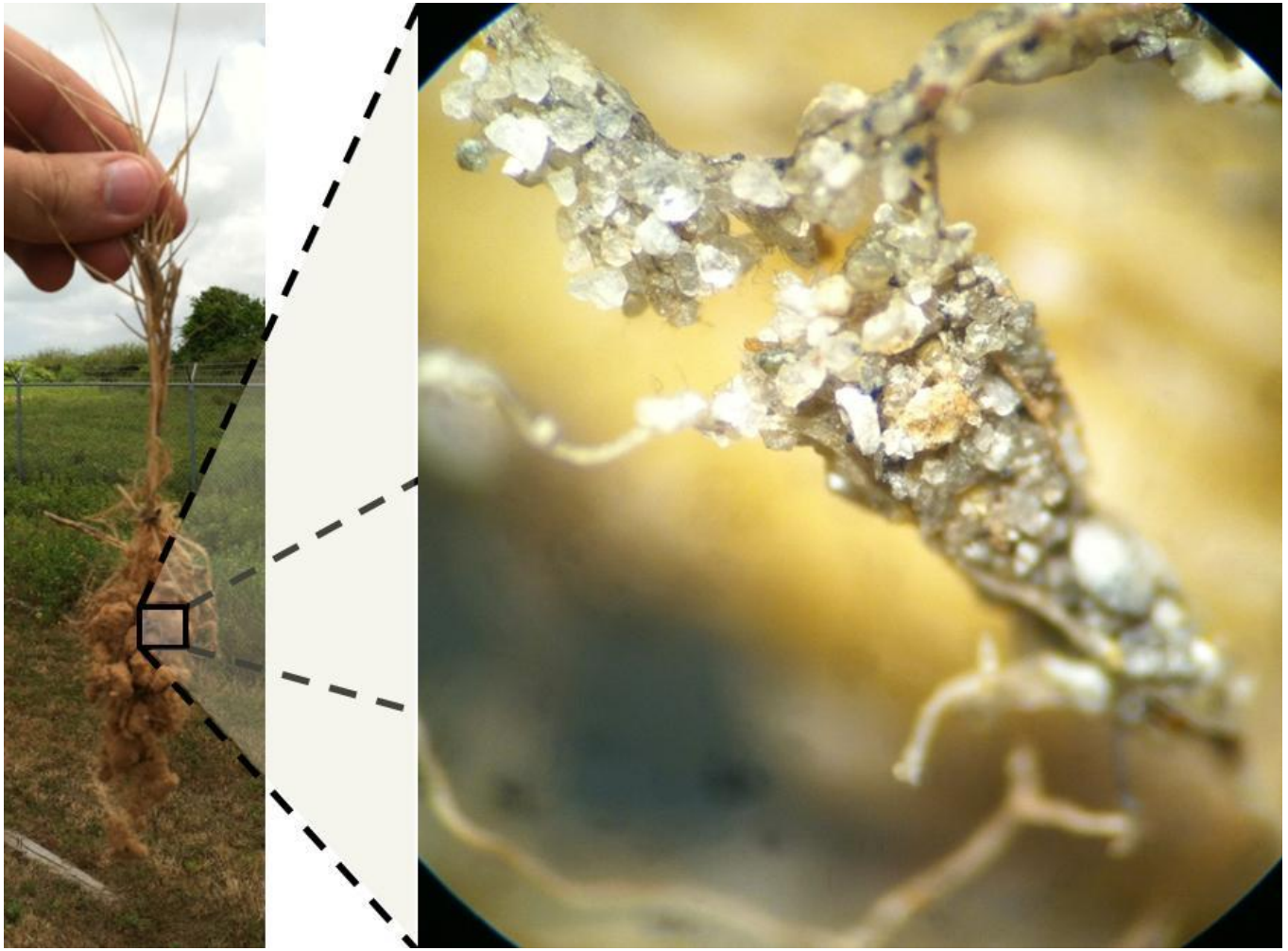
BIOLOGICAL ASPECT



Does vegetation grow better when planted on top of Sea Bales?

PLANTS AND DUNES

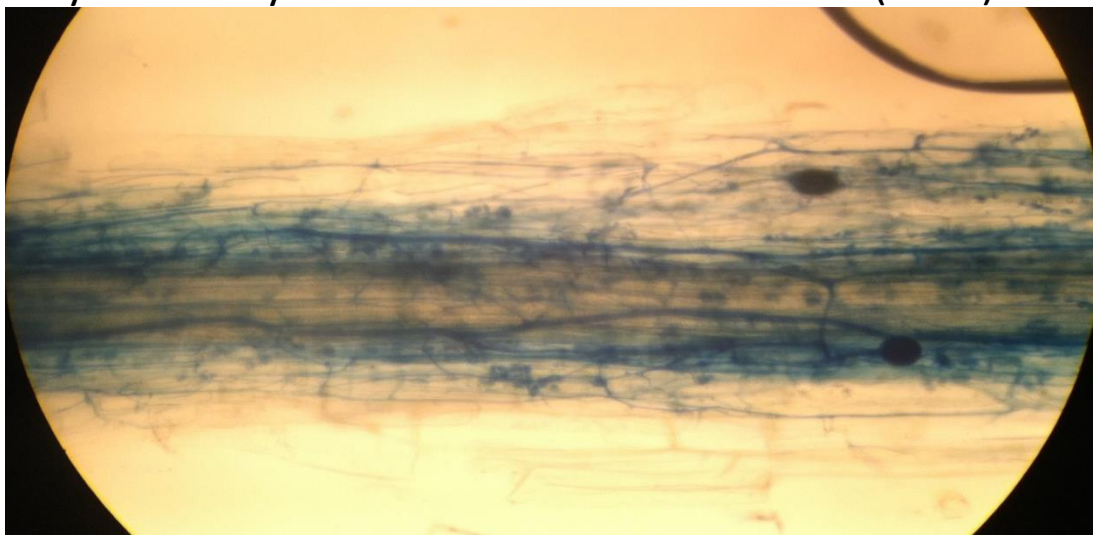
- Claims: Sediment Stability, Aggregation, and Accretion



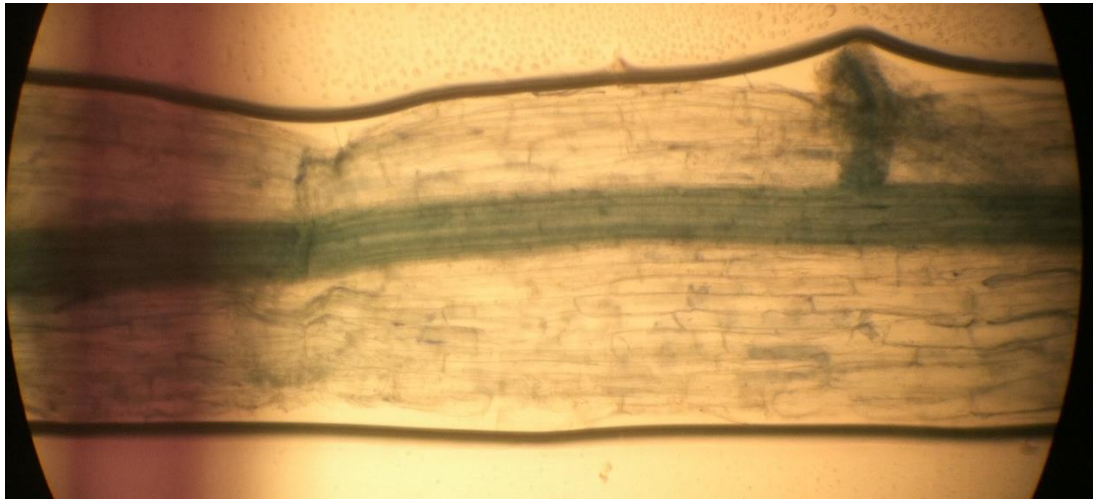
Dune Accretion- 20 weeks

OTHER RESTORATION INTERESTS

Mycorrhizally active *Panicum amarum* root (100x)



Mycorrhizally inactive *Panicum amarum* root (100x)



Rooted Plant

Sprig

QUESTIONS?