
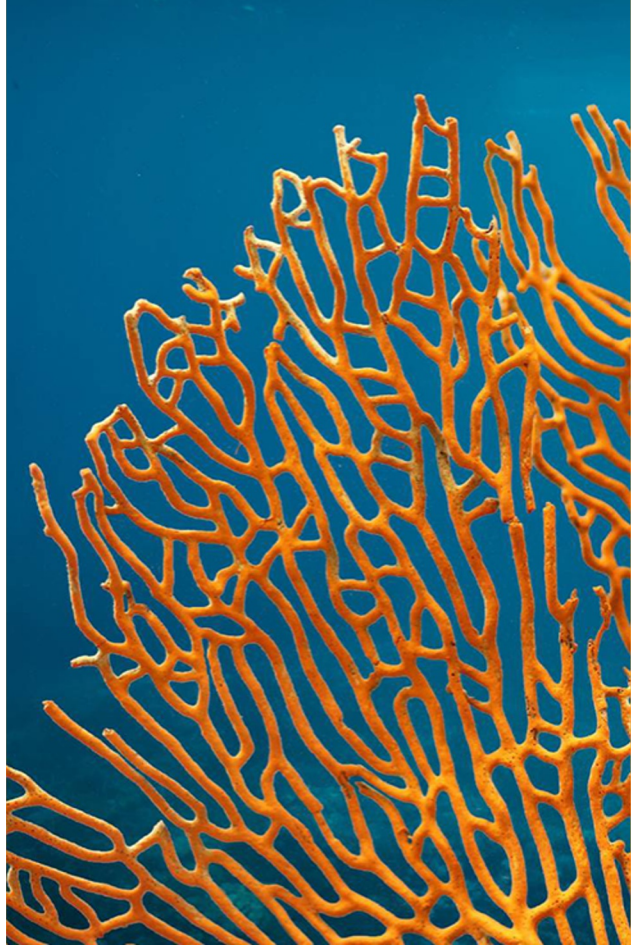

TEAM SANDWORM

2022 ORSEA Capstone Presentation

OREGON MARINE SCIENTIST AND EDUCATOR ALLIANCE

OUR TEAM

Risa Askerooth
Graduate student, Oregon State University, Department of Integrative Biology

Amorette Drexler
Teacher, South Salem High School

Chuck Getter
Teacher, Lincoln City Career Tech High School

ANCHORING PHENOMENA & DRIVING QUESTION

Hybrid beachgrass discovery

How does a newly-discovered beachgrass hybrid affect coastal dune ecosystems?

OREGON MARINE SCIENTIST AND EDUCATOR ALLIANCE

ESSENTIAL QUESTIONS & STANDARDS

ESSENTIAL QUESTIONS

1. What ecosystem services do beachgrasses and dunes provide?
2. How do we identify and measure beachgrasses?
3. How does vegetation influence dune shape, and how does dune shape affect protection from climate change impacts?
4. How do hybrids form, and why are they important?

SCIENCE

NGSS HS-LS2-6:
Evaluate claims, evidence and reasoning that the complex interactions in ecosystems maintain relatively consistent numbers and types of organisms in stable conditions, but changing conditions may result in a new ecosystem.

MATH

MP.2 Reason abstractly and quantitatively
HSS-ID.A.1 Represent data with plots on the real number line.
HSS-IC.A.1 Understand statistics as a process for making inferences about population parameters based on a random sample from that population.
HSS-ID.B.6 Evaluate reports based on data.

5-E LESSON MODEL AND ASSOCIATED ACTIVITIES

Engage

Watch video +/- read article relating to movie "Dune" and discuss hybrids

Explore

Students research about dunes and have a discussion about pros and cons from different perspectives.

Students label a visual of a dune, then brainstorm about how to measure with tools given (constraints).

Explain

Students will learn background information for how to identify beachgrasses.

Presentation and discussion about dunes, ecosystem services, and management of ecosystems.

Elaborate

Field trip to coastal dunes to interact with beachgrasses (or digital data work). Workbook included for both options.

Evaluate

Students visualize field data, using data and a provided dune profile worksheet.

Students compare and contrast dunes with and without vegetation.

OREGON MARINE SCIENTIST AND EDUCATOR ALLIANCE