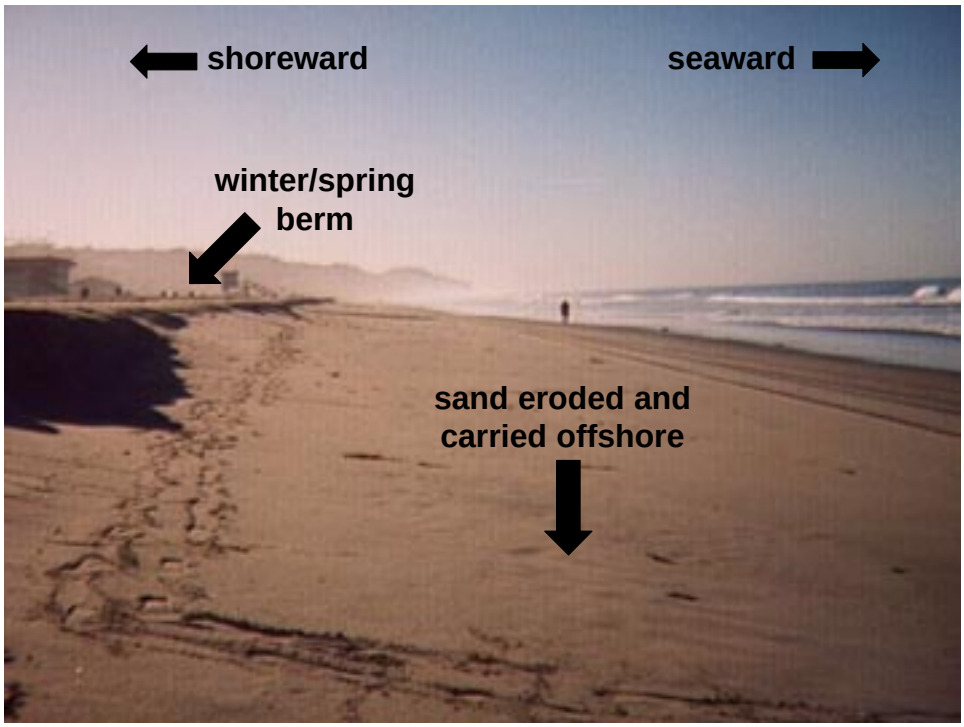



UCLA
Marine Science Center
OceanGLOBE

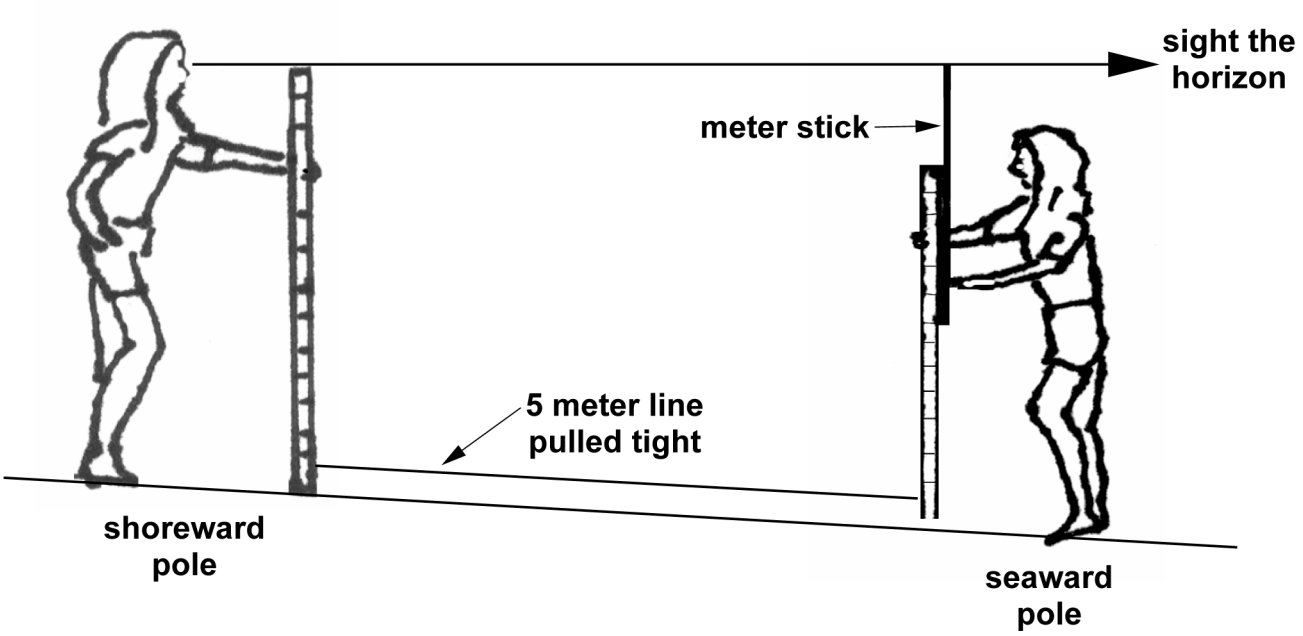
# Using a Beach Profiler

## INTRODUCTION:

Sand beaches are constantly changing, which is why they are relatively unstable environments for animals and totally unsuitable for attached seaweeds. As part of your beach studies you will notice the seasonal differences in the way the beach looks. Sometimes it has a gentle slope towards the sea. At other times there is a very steep cliff of sand, a sharp dropoff, known as the "*berm*." As we work, we will ask ourselves at least three questions:

a. How does the profile of the beach change over the year?
b. What causes these changes in the beach profile ?
c. How do these changes in beach profile influence the animals and plants that we record each time ?

# Using the Beach Profiler




1- The profile of the beach is measured and recorded on your data sheet at 5 meter intervals. The person holding the shoreward pole "sights" across the top edge at the horizon line. The person holding the seaward pole slides a meter stick up the pole until the other partner says to stop...when the tip of the stick is lined up with the horizon. The distance measured on the meter stick extending above the seaward pole represents the vertical dropoff of the beach over that 5 meter interval.

2- Continue taking measurements until you reach the water line. Record the total distance from your starting point or baseline to the water's edge. This distance represents the exact tide level at that precise moment in time.

3- The metric calibration markings on the poles are also used to measure the exact wave height (see Part One).

Reading the seaward pole.

In this illustration the beach has sloped downward 7 cm over the 5 m distance measured.