>>NARRATOR:  DR. DAVID KIMBRO AND DR. RANDALL HUGHES WORK TO UNLOCK THE SECRETS OF THE INTERTIDAL ZONE: WHERE THE LAND MEETS THE SEA.

>>ROB DIAZ DE VILLEGAS: WHEN THE TIDE GOES OUT, YOU CN SEE THEM ALL. EVERYTHING IS HUNGRY.

ON THE FIRST DAY OF SCALLOP SEASON, WE TAKE A ROUGH PADDLE OUT TO BAY MOUTH BAR OFF OF ALLIGATOR POINT.  WE HEAD OUT AS LOW TIDE APPROCHES TO MAXIMIZE OUR VISIBILITY.

>>DAVID KIMBRO: I LIKE COMING OUT TO BAY MOUTH BAR BECAUSE IT'S RIGHT IN MY BACKYARD PRETTY MUCH AND WE HAVE AN ASSEMBLAGE OF VERY LARGE CARNIVOROUS SNAILS THAT ARE THE BIGGEST MOST DIVERSE REALLY IN THE WORLD.

>>ROB DIAZ DE VILLEGAS: THAT DIVERSITY IT WAS ATTRACTED LEGENDARY ECOLOGIST ROBERT PAINE TO THESE SEAGRASS BEDS.

>>DAVID KIMBRO:  BOB IS THE GODFATHER OF THE WAY WE DO ECOLOGY THESE DAYS. THIS IS SORT OF LIKE HIS PROVING GROUND WHERE HE WAS SORT OF WORKING OUT THE EARLY STAGES OF SOME OF THESE REALLY BIG IDEAS THAT TRANSFORMED ECOLOGY. .

>>ROB DIAZ DE VILLEGAS: THE HORSECONCH EATS OTHER SNAILS. THOSE SNAILS EAT SNAILS AND CLAMS. BY EATING THEIR PREDATORS, DO HORSE CONCHS BENEFIT CLAMS AND THE WATER FILTRATION THEY PROVIDE?

>>DAVID KIMBRO: DOES THAT HAVE RIPPLE EFFECTS TO AFFECT THE CLAMS THAT ARE IN THE SEDIMENTS AND THEN THE SEAGRASS THAT I'M WALKING ON HERE? AND ULTIMATELY DOES THIS ALL TIE INTO CHANGES THAT THE CLAM FARMERS ARE SEEING INSIDE THE BAY HERE WITH INCREASES IN SALINITY THAT'S MAKING IT HARDER FOR THEM TO GROW THEIR CLAMS. PERHAPS THESE SNAILS ARE HELPING THE CLAMS AND THEN HELPING THE SEAGRASS AND THAT'S HELPING KEEP THE SEDIMENT IN PLACE INSTEAD OF

ERODING AND DUMPING IT IN HERE IN THE INLET AND CLOSING IT UP AND CUTTING OF THE SORT OF FLUSHING OF THIS BAY.

[MUSIC]

>>NARRATOR: IN THE GRASS, ON THE REEF IS FUNDED BY THE NATIONAL SCIENCE FOUNDATION.