

### ***Changing Seas on WXEL 3rd Quarter 2023***

07/02/23 8:00PM CHANGING SEAS (WPBT) #1503

#### **BERMUDA: LIFE AT OCEAN'S EDGE**

As the shipwreck capital of the world, Bermuda is known for its treacherous reefs. But these unique corals may also offer clues to heightened resilience in the face of a changing climate. Working at the edge of science – and living at the edge of the ocean – local Bermudians and international scientists race to protect these islands and reefs they call home.

07/02/23 8:30PM CHANGING SEAS (WPBT) #1504

#### **LIFE IN THE DARK: THE POLAR NIGHT**

At the northernmost year-round research station in the world, scientists brave frigid temperatures and perpetual night to solve an ocean mystery. The team is trying to figure out how some of the tiniest animals survive at a time of year when their main food source is not available.

07/03/23 5:30PM CHANGING SEAS (WPBT) #1503

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07/04/23 5:30PM CHANGING SEAS (WPBT) #1504

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07/10/23 5:30PM CHANGING SEAS (WPBT) #1101

#### **CORDELL BANK: A NATIONAL TREASURE**

California's north-central coast is famous for its natural splendor. Only fifty miles northwest of San Francisco's Golden Gate Bridge, yet light years away from the hustle and bustle of the human world, lies a magical underwater island few people have ever heard of. Protected inside a National Marine Sanctuary, the Cordell Bank is a hotspot for marine life. Cold, nutrient-rich waters welling up from the deep fuel the base of the marine food chain in the region, which in turn feeds birds, sea turtles, and marine mammals who travel from thousands of miles away.

07/11/23 5:30PM CHANGING SEAS (WPBT) #1303

#### ALVIN: PIONEER OF THE DEEP

The deep-sea submersible Alvin has brought explorers to extraordinary places for more than 50 years. Now, as Alvin is poised to continue its revolutionary scientific work, a new set of upgrades will take it deeper than ever before. A coproduction with the Woods Hole Oceanographic Institution.

07/17/23 5:30PM CHANGING SEAS (WPBT) #1102

#### TOXIC WATERS

Florida experiences many types of harmful algal blooms, some of them annually. Several species of algae, like sargassum, aren't toxic, but can cause economic and environmental stress when they pile up on beaches and clog up coastlines. Others, like red tide and blue-green algae, release neurotoxins, causing massive wildlife kills and affecting beachgoers.

07/18/23 5:30PM CHANGING SEAS (WPBT) #1304

#### HABITATS: THE KEY TO FLORIDA'S FISHERIES

Tarpon and snook are two of Florida's most iconic game fish. Both species rely on mangrove creeks and ponds when they are juveniles. With half of the state's mangroves lost to development, scientists employ creative solutions to restore and reconnect some of these important habitats to secure the future of the fisheries.

07/24/23 5:30PM CHANGING SEAS (WPBT) #1103

#### CORALS IN CRISIS

Stony Coral Tissue Loss Disease is devastating Florida's fragile coral reef ecosystem. But all hope is not lost. Dedicated scientists are working hard to find the cause of the disease, treat the ill and restore these cities of the sea to their former glory.

07/25/23 5:30PM CHANGING SEAS (WPBT) #1401

#### VANISHING WHALES

The humpback whale population that migrates between Hawai'i and Alaska is considered a conservation success story. When sightings of the animals suddenly dropped, people became concerned. Scientists in both locations are trying to understand what happened to the whales and why.

07/31/23 5:30PM CHANGING SEAS (WPBT) #1104

#### MYSTERY OF THE HUMPBACK WHALE SONG

Each winter, a population of humpback whales migrates to its breeding grounds in the Hawaiian Islands. It is here that male humpbacks perform their elaborate and haunting song. Experts are studying the purpose of this song and what it might tell them about the animals' overall fitness.

08/01/23 5:30PM CHANGING SEAS (WPBT) #1402

#### HUMPBACK HEALTH

How does the body size and overall health of humpback whales change across their migratory cycle? A team of researchers studying the animals, which spend part of the year feeding in Alaska and a few months fasting while in their Hawaiian breeding grounds, is making remarkable discoveries.

08/07/23 5:30PM CHANGING SEAS (WPBT) #1201

#### FLORIDA'S BLUE HOLES: OASES IN THE SEA

Blue holes scattered throughout the Gulf of Mexico inspire a team of exploration scientists and divers who set out to uncover the mysteries of what makes them ecological oases.

08/08/23 5:30PM CHANGING SEAS (WPBT) #1403

#### KELP: HIDDEN TREASURE OF THE SALISH SEA

The kelp forests of the Puget Sound have long played an essential role in the local ecosystem as a habitat and food source. Today, this foundational species is in decline, but resource managers, scientists, tribal citizens, and advocates are working together to solve the mysteries of conserving and restoring kelp forests.

08/14/23 5:30PM CHANGING SEAS (WPBT) #1202

#### A DECADE AFTER DEEPWATER

Ten years after the Deepwater Horizon oil rig disaster, scientists are still studying its devastating impacts on the Gulf of Mexico. Now they are using lessons learned to prepare for the next big spill.

08/15/23 5:30PM CHANGING SEAS (WPBT) #1404

#### SAVING FLORIDA'S STARVING MANATEES

Florida's iconic sea cows are dying in record numbers. Years of declining seagrass beds have eliminated one of the gentle giants' primary food sources. Now wildlife managers have taken the unprecedented step of feeding the animals, while scientists are in a race against time to restore the lost seagrass.

08/21/23 5:30PM CHANGING SEAS (WPBT) #1203

#### PERU'S DESERT PENGUINS

Along Peru's barren coastline seabirds reign. Among them is the adorable Humboldt penguin, which builds its nests in the guano of other birds. Scientists monitor local penguin populations and study the animals' interactions with fisheries.

08/22/23 5:30PM CHANGING SEAS (WPBT) #1501

#### MOLLUSKS: MORE THAN A SHELL

Seashells, with their beautiful shapes and colors, have inspired humans since the dawn of time. Equally fascinating are the animals which make them, and their unique place in the web of life. Researchers and citizen scientists continue to make new discoveries, while a cutting-edge digital project makes vast research collections easily accessible online.

08/28/23 5:30PM CHANGING SEAS (WPBT) #1204

AMERICAN SAMOA'S RESILIENT CORAL REEFS

The territory's corals are thriving, while reefs elsewhere are in serious decline. Experts study what makes these corals more resilient to local and global stressors.

08/29/23 5:30PM CHANGING SEAS (WPBT) #1502

SHARKS IN BELIZE: JAGUARS OF THE SEA

The Belize Barrier Reef is home to a diverse array of top predators like lemon sharks, nurse sharks, tiger sharks, and Caribbean reef sharks. In a unique collaboration, local fishers leverage their generational knowledge to help marine scientists and fisheries managers keep shark populations healthy for all.

09/04/23 5:30PM CHANGING SEAS (WPBT) #1301

RECREATIONAL SHARK FISHING: COLLABORATING FOR CONSERVATION

Shore-based, catch and release shark fishing is a popular past time in Florida. But is it having a negative impact on sensitive shark populations? Scientists have teamed up with anglers to study the survival rates of the fish and conduct outreach on best practices.

09/05/23 5:30PM CHANGING SEAS (WPBT) #1503

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09/11/23 5:30PM CHANGING SEAS (WPBT) #1302

AT THE WATER'S EDGE: THE SALT MARSH

Along scenic coastlines in the South, waves of mesmerizing green and golden grass stretch to the horizon. This is the salt marsh - a part liquid, part solid landscape that is teeming with life. How do scientists study the salt marsh? And how resilient is it to climate change?

09/12/23 5:30PM CHANGING SEAS (WPBT) #1504

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09/19/23 5:30PM CHANGING SEAS #301

#### ALIEN INVADERS

In the waters of the western Atlantic and Caribbean, a voracious alien predator has taken hold. Native to the Indo-Pacific, the invasive lionfish is a major threat to biodiversity and the health of already stressed coral reef ecosystems.

09/25/23 5:30PM CHANGING SEAS (WPBT) #1304

#### HABITATS: THE KEY TO FLORIDA'S FISHERIES

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09/26/23 5:30PM CHANGING SEAS #302

#### REEF REVIVAL

In the emerging science of coral reef restoration, marine biologists and resource managers are discovering naturally occurring mechanisms that promote coral growth and restore ecological balance in these gardens of the sea.