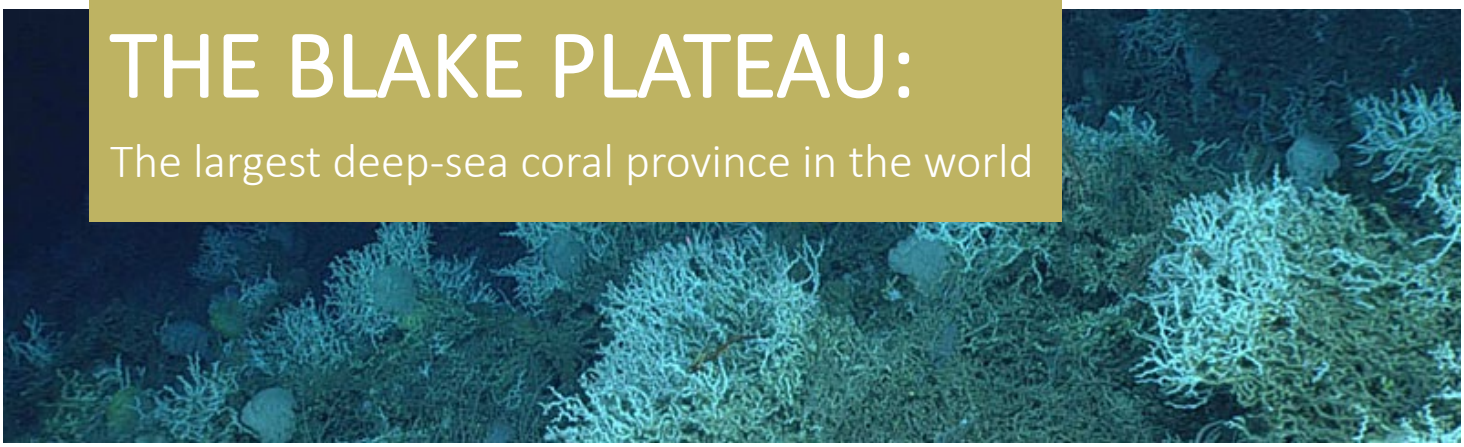
THE BLAKE PLATEAU:

The largest deep-sea coral province in the world



The Blake Plateau is a Southern Treasure. The largest deep-sea coral province on Earth known to date, the Blake Plateau lies about 1000-3000 feet below the ocean's surface and runs 110 miles from the Bahamas to Cape Hatteras. This hidden underwater plateau contains at least 200 species of spectacular cold-water coral that work together with the powerful Gulf Stream to fuel the region's vast ocean biodiversity.[1] This is a globally significant ecosystem!

The plateau contains numerous coral "neighborhoods" delineated by unique characteristics. Among the most striking is what scientists believe to be the largest nearly continuous deep-sea coral reef on earth, called the "Million Mounds." This "coral highway" runs about 200 miles from Georgia to central Florida. The plateau also contains deep-sea corals in the Central Blake Knolls and the Stetson/ Richardson Complex. As our ocean warms, these colder, deeper areas serve as an important refuge for deep-sea coral reefs, potentially securing their long-term survival.[2]

The reefs are mainly made up of a deep-sea coral named *Lophelia*, which is a ghostly white. The *Lophelia* forests support a diverse community of wildlife, including close to 100 species of fish.[3]

Although deep beneath the waves, the deep coral province is not an isolated ecosystem. The Gulf Stream feeds the corals with an abundance of food that falls in the form of "marine snow." The corals, in turn, process the organic matter into essential nutrients. As the Gulf Stream's currents roll across the plateau, they bring these nutrients back to the surface, sustaining the productivity of the entire region and beyond.[4]

In the waters above the Blake Plateau, large fish like swordfish and marlin ride the Gulf Stream in search of food; sea turtles spend the early portion of their life living amongst Sargassum seaweed feeding and hiding from predators; and sea-faring birds forage the Gulf Stream waters, taking advantage of the rich environment.

A healthy ocean ecosystem benefits society in many ways, including through food production, nutrient cycling, and recreation and tourism.

Commercial & Recreational Fishing

The Gulf Stream and the deep-sea corals help to support commercial and recreational fisheries such as the Royal Red Shrimp, Golden Crab, Wreckfish, and highly migratory species that swim the Gulf Stream waters.[5] Both commercial fisheries and recreational fisheries are supported by the engine of the Gulf Stream. Currently, there is only minimal commercial fishing in the deep waters of the Blake Plateau.

A Noah's Ark of Genetic Resources

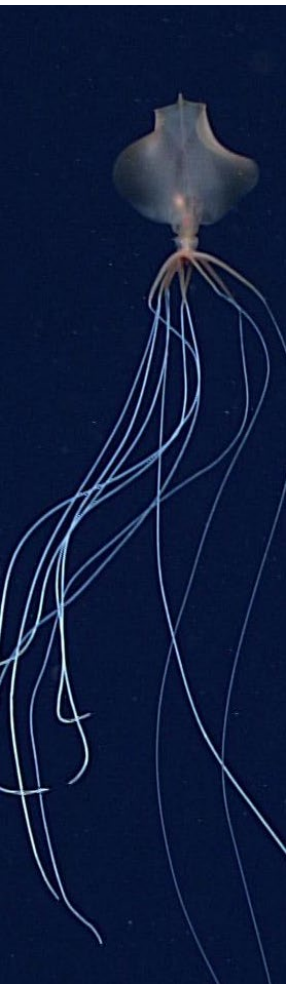
The deep sea with its extreme conditions (e.g., absence of light, cold temperatures) is increasingly viewed as an important resource for new science discoveries. Chemicals found in the ocean are being used to new treat Alzheimer's, cancer, and COVID.[6] The Blake Plateau is a treasure-trove of novel chemicals.

All photos courtesy of NOAA.

Benefits of Marine Protected Areas

Marine protected areas help ensure that marine wildlife has space to flourish. Scientists have observed a number of benefits for protected zones including more and larger fish, high quality habitat, elevated resilience to stressor such as marine heat waves, more rapid recovery from disturbance.[7]

Scientists estimate that it took hundreds of thousands of years for this special seascape to form. Deep-sea ecosystems grow very slowly and are therefore incredibly vulnerable to disruptions. As industries look farther offshore for fishing, fossil fuel development, and mineral extraction, ensuring the persistence of this vital ecological community will require dedicated attention and increased conservation measures. **Sign our petition today to advocate for permanent protections within the Blake Plateau: https://gipl.org/coast**.



THREATS TO THE BLAKE PLATEAU

Mining of Rare Earth Minerals--Of particular concern for the Blake Plateau is the possible interest in deep seabed mining. The plateau itself is a manganese pavement and it has fields of manganese nodules that have been the subject of research in past decades. Given the government's rising interest in finding sources of rare earth minerals within U.S. borders, the Blake Plateau could be subject to deep seabed mining in the future. This would be devastating to the deep-sea corals and other wildlife due to the release of giant sediment plumes and possibly heavy metals.[8]

Oil and Gas Development--Offshore oil development is a reoccurring threat to our offshore ecosystems. The Deepwater Horizon oil spill demonstrated the types of serious harms that can occur to marine and coastal wildlife, ecosystems, and ocean-dependent industries.[9]

Industrial Fishing--Bottom-tending gear, such as trawl nets, crab pots, or bottom longlines, can permanently destroy fragile deep-sea coral reefs. This type of gear is currently prohibited from a large portion of the Blake Plateau, but not all of it, and the protections are not durable. They can be changed at any point. Fishing in the water column can also harm Blake Plateau wildlife through unintended bycatch, which is when gear catches and often kills fish and other marine life that's not being targeted. Pelagic longlining can have high bycatch rates, particularly of endangered sea turtles and sea birds, along with depleted populations of fish such as sharks, marlin, and sailfish. Some portions of the Blake Plateau should be protected from this industrial activity.[10]

Ocean Carbon Dioxide Removal--People are increasingly looking to the ocean to enhance its ability to remove carbon from the atmosphere and store it in the deep sea. Offshore regions like the Blake Plateau are attractive to ocean CDR developers because there is currently little competition for space, and because it's deep. Some types of technologies that people are developing are growing and sinking vast amounts of seaweed, electrochemical treatments of seawater, and direct injection of liquid CO_2 under the seabed.[11]

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