



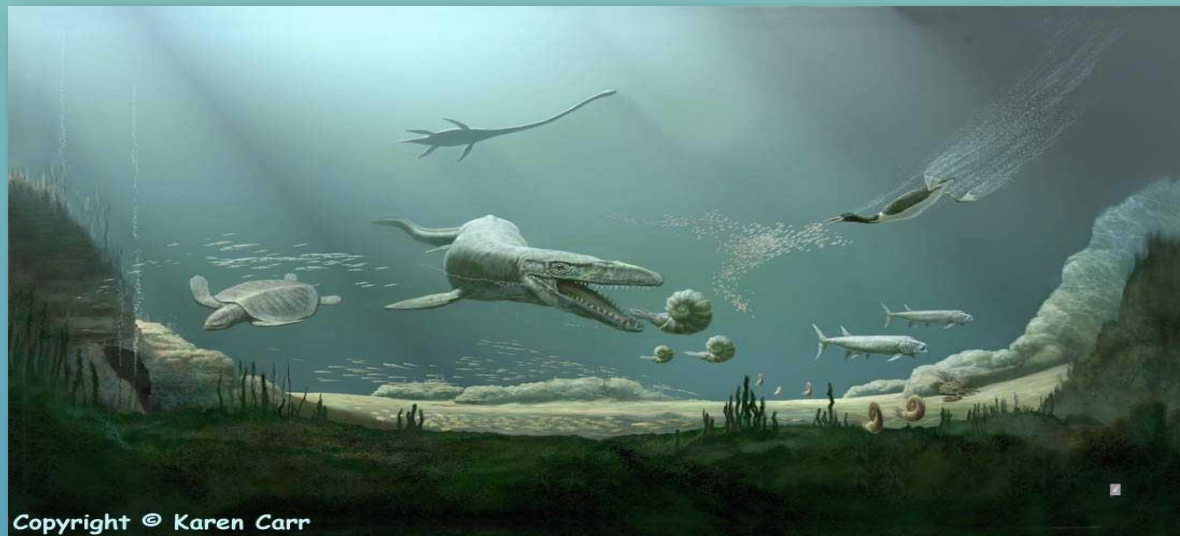
# Seagrass!

A Coastal Ecosystem



# What is Seagrass?

- Seagrasses are flowering plants which grow in marine environments.
- Seagrasses evolved from terrestrial plants which recolonized the ocean approx. 100 million years ago.



# What is Seagrass?

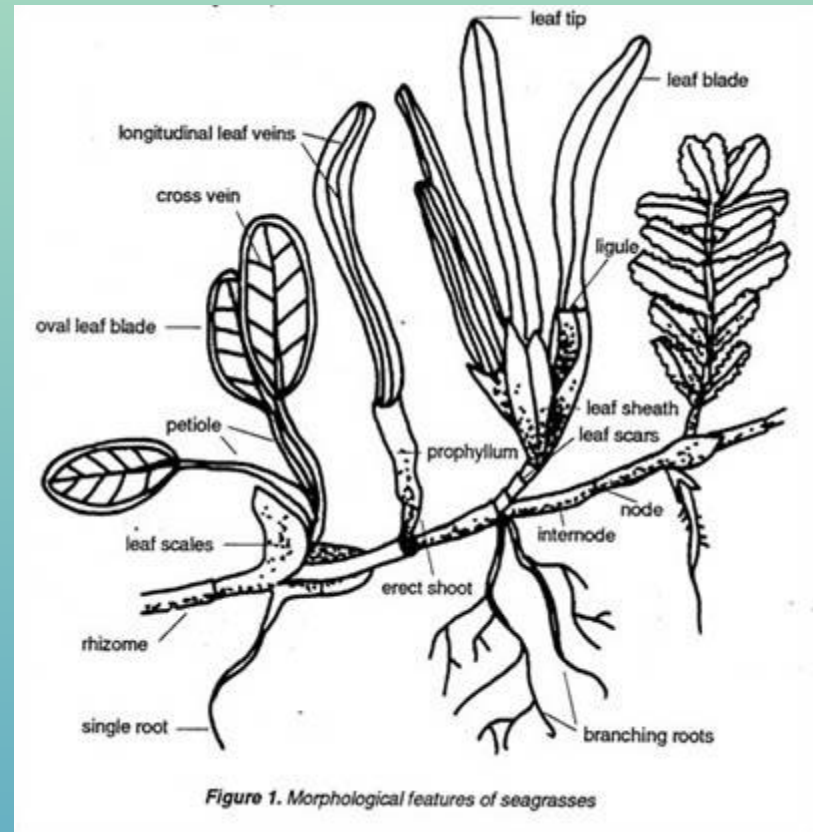
- There are about 60 species of seagrass found worldwide. These mostly range from the size of your fingernail to plants with leaves as long as 7 meters.



# *Seagrass* is not seaweed or algae

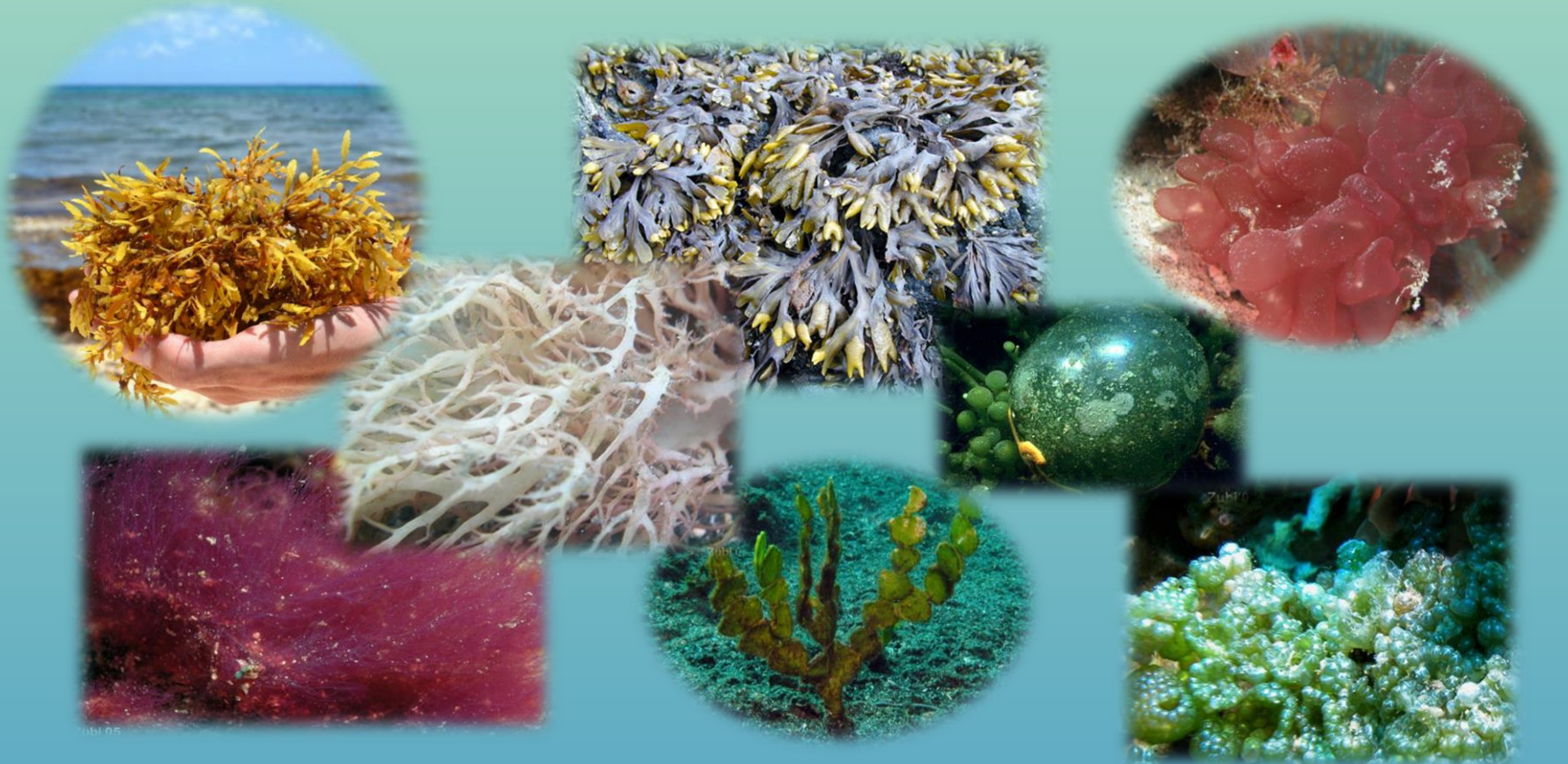
Seagrass are:

- Able to live in salty water
- Able to live normally when fully underwater
- Has an anchoring or root system
- Able to compete with other life for food and habitat



# Algae

Simple plants (no stems, roots and leaves) that grow in bodies of water.



# Species of Seagrass found in the Cayman Islands

Turtle Grass



Manatee Grass



Shoal Grass



# Turtle Grass

- Turtle grass gets its name from its important connection to green turtles.
- It is an important source of food for green turtles and is easy to identify with its broad flat green blades that make up lush meadows growing over the sea floor.



# Manatee Grass

- Manatee grass gets its name as it is a major food source for manatees!
- It is an important source of food for these creatures and can be easily identified by its skinny, cylindrical shape.





# Shoal Grass

- Shoal Grass is very similar to manatee grass and can be identified by its slim, flat shape.



# Where do we find seagrass?

- Seagrass meadows typically occur in most shallow, sheltered soft-bottomed marine coastlines and estuaries.



# Where do we find seagrass?

- Moving seaward from the mangroves we typically find seagrass beds.
- Seagrass is one of the most important plants on earth as it is the basis for many important ecosystem goods and services.



# Where do we find seagrass?



- Seagrasses survive in sites sheltered from wave action or where water is trapped at low tide, protecting the seagrasses from exposure (to heat, drying).

# Seagrass Functions

Seagrass beds provide many ecosystem benefits. Some of these include...

- Habitat homes and juvenile fish nurseries
- Sediment stabilization
- Hunting grounds for birds
- Carbon storage
- Improves water quality



Ethan Daniels

# Seagrass Functions

Seagrass beds provide many ecosystem benefits.  
Some of these include...

1. Habitats and nursery grounds for finfish and shellfish.



# Seagrass Functions

More examples of juvenile finfish found in seagrass beds include snapper, grunts, jacks, and many others.



# Seagrass Functions

There are also many commercially important species found in seagrass beds. Such as lobsters, shrimp and queen conchs!





# Seagrass Functions

Other animal species include

- Sea Urchins
- Sea Cucumbers
- Starfishes and Sea Stars
- Snails and Slugs
- Octopus
- Anemones and Sponges
- Juvenile Rays
- Jellyfish



Even seahorses may be found in seagrass beds!



There is an incredible diversity and abundance of life in this environment

# Seagrass Functions

2. Blades of the turtle grass slow wave action and stabilize sediment protecting against erosion! It also absorbs nutrients from coastal run-off, creating much clearer water.



# Seagrass Functions

- Seagrass leaves are homes for bacteria, and algae providing food for other marine life.
- This food creates very healthy fishing grounds!



# Seagrass Functions

3. These areas are also important foraging grounds for wading birds and marine-life like turtles and manatees and dolphins



# Seagrass Functions



- The great egret, snowy egret, little blue heron and tricolored heron are among the wading birds that frequent seagrass beds in search of food.

# Seagrass Functions

- Brown pelicans, magnificent frigatebirds and least terns fly over seagrass beds in search of prey.
- Ospreys seize prey from the water surface with their talons.



All three of these coastal habitats must remain healthy for each to thrive!





# Threats to Seagrass

- Pollution
- Coastal Development
- Dredging
- Careless and unregulated boating and fishing
- Climate Change



# Threats to Seagrass

1. Pollution can hurt seagrass. It can cause seagrass to die from being shaded from light, covered by faster growing algae, buried by sediment from a land base source or harmful chemicals.



# Threats to Seagrass

2. Damage by anchoring of boats and by propellers cause complete destruction by dredging and sand mining for coastal construction.



# Protection

As we think about preserving national assets such as mangroves and other wetland areas, let us remember that seagrass communities are also wetlands with many important functions.



# Protection

It is our responsibility to protect and preserve these incredible ecosystems too!



Credit [ALEX MUSTARD](#)

# Explore!



- Explore the seagrass areas close to our coasts and discover the amazing life in these marine meadows!