Sea Turtle Presentation Script

Slide 2

There are Seven different Species of Sea Turtles in the world.  Two of them are found on the US Virgin Islands: The Hawksbill Sea Turtle and The Green Sea Turtle.

Slide 3

The Hawksbill Sea Turtle is a small to medium sized sea turtle that can weigh up to 200 pounds.  Adults live in healthy coral reef communities which allows them to feed primarily on certain types of ocean sponges.  The Hawksbill received it’s name from its narrow head, and sharp bird-like beak used for cracking into crevices of coral reefs while it looks for food.

Slide 4

The Green Sea Turtle lives in warm coastal waters of the tropical and subtropical oceans.  The pigment from their green diet colors their fat, which gives them their common name.  The population of female nesting sea turtles has decreased substantially in the past 100 to 150 years.

Slide 5

Sea Turtles live in almost every Ocean Basin in the world but nest on tropical and subtropical beaches.  They migrate long distances to feed, but most of the time can be found in shallower waters due to the abundance of seagrass and algae to feed on.

Slide 6

The diet of Sea Turtles varies from species to species, but they are generally omnivorous and feed on simple Sea grasses and marine algae.  Hatchlings will also feed on small animals in order to get the large amount of energy they need for their initial phase of life.  Hawksbill Sea Turtles feed primarily on Sponges, but also eat other Invertebrates as well as some algae.  Lastly green sea turtles primarily feed on plants like seagrass and algae.

Slide 7

Sea Turtles are Keystone Species that are necessary for maintaining a healthy and balanced marine ecosystem, especially in seagrass beds and coral reefs.  Dune vegetation on beaches is able to grow and become stronger with the presence of nutrients from Sea Turtle Eggs.

Slide 8

The Hawksbill Sea Turtle helps to maintain the abundance of Sea Sponges, what it primarily feeds on.  Without these turtles, the marine ecosystem of coral reefs could become overpopulated with sea sponges, disrupting the balance of life.

Slide 9

Green Sea turtles are “the lawn mowers” for many sea-grass beds.  Seagrass beds will grow healthier and faster with a daily trim.  Without Seagrass beds many species humans harvest would be lost.

Slide 10

Only 1 in 1,000 to 10,000 hatchlings will survive to adulthood and reproduce, so the odds are stacked against them from the beginning as an r-selected species. There are many natural threats, such as predation, but it is the human threats that are driving them to extinction which is what I will discuss. 6 of the 7 sea turtle species are endangered or threatened, with 2 of those being critically endangered, the Hawksbill which we saw in St. John and the Kemp’s Ridley, only one step away from extinction. The seventh species that is not labeled as threatened actually has no designation because there is not enough data on its population, so it’s not necessarily not endangered, its just not confirmed as endangered. We have seen a drastic decline in sea turtle populations which has warranted their labeling of endangered. Just one example is the decline of about 25,000 nesting female leatherbacks to about 2,300 in the span of 20 years in the entire world- a decrease of over 90%.

Slide 11

First of all, bycatch is a major threat to sea turtles. They become entangled in the nets and traps, dragging them along the ocean floor so that they drown. If they survive the nets but are left injured, fisherman throw them back into the water to suffer a slow death. Over 250,000 sea turtles in the US each year are harmed or die from fishing methods. Additionally, poaching poses a problem in a lot of SouthEast Asian cultures, where their use in ceremonies and traditional practices in integral to the culture. Despite laws against all poaching of sea turtles, enforcement is less than ideal and trade across borders is difficult to monitor.

Slide 12

We all know there’s a lot of pollution in our oceans, including oil, run-off, metals, chemicals, and plastics. This can cause immediate harm when a turtle comes in contact with a chemical or becomes entangled in plastic, or long term harm when pollution destroys their habitat or chemicals biomagnify in their tissues. Fibropapillomas is a condition linked to ocean pollution that causes tumors to grow all over the body of sea turtles, slowing blinding them and keeping them from eating, so that they die a long death. Turtles often mistake plastic bags for jellyfish and try to eat them, only to harm their digestive systems. Beach development also becomes a problem when construction causes beach erosion, beaches are polluted, and sand is brought in to replenish the beach, all of which hinder nesting for a female. The temperature of the sand needs to be within a certain range to allow for nesting and proper sex ratios, but human activity can alter the temperature. Also, light pollution confuses sea turtle hatchlings. Hatchlings are driven towards the light of the moon on the ocean, but lights from houses confuse them and they go the wrong way.

Slide 13

Finally, climate change in general poses threats to turtles. Sea level rise and storms cause erosion to beaches, hotter temperatures on land will affect incubation temperatures of nests, and hotter temperatures in the water will result in the loss of corals which is a major habitat for turtles. Additionally, a change in ocean currents could affect a turtle’s ability to migrate, as they rely on the currents to travel and return to beaches to nest.

Slide 14

The ESA was a law passed in 1973 to enforce rules agreed upon at CITES. It is designed to protect threatened species from human activity and prevent extinction. All US sea turtles are protected under the ESA, and listed as endangered or threatened. It aims to protect sea turtles by reducing bycatch through TED’s and preserving nests. It’s success has been limited.

Slide 15

TED’s allow turtles that are caught by a fisherman’s net to escape through an opening in the net after the turtle reaches a grid that filters out larger animals. It is required by US law and all importers to the US of seafood, but it is difficult to enforce. Many fisherman tie the hatch shut so that turtles cannot escape, maximizing their catch.

Slide 16

Some local ordinances have been put in place to help sea turtles. One is the use of amber lights instead of regular lights, because these lights are undetected by hatchlings and therefore do not confuse them. There are also many volunteer forces that work to monitor nests, taking data and protecting them from human interference. Many hatchlings and adult turtles are also tagged to track their movements and potentially rescue them. Many rehabilitation centers exist dedicated solely to treating injured turtles and raising weak hatchlings so that they can be released in the wild.

Slide 17

Generally, sea turtle populations are decreasing, but in the US the revival of sea turtles in some regions is occurring. Both Florida and North Carolina have seen increases in sea turtle populations and nests each fall, indicating that some efforts to protect this species is paying off.