

# Trees for You and Me:

## THE PLIGHT OF THE POLAR BEAR

### DID YOU KNOW?

- Trees for You and Me (TFYM) is an AAZK conservation program that zookeepers started in 2009 as a grassroots effort for keepers to work in their own communities to get more trees planted and help reduce the amount of carbon dioxide in the atmosphere.
- Because Polar Bears serve as a gauge to measure effects of climate change, they are the TFYM ambassador.
- The Polar Bear (*Ursus maritimus*) is the only bear species that is known to be a marine mammal.
- They are the apex predator in the Arctic and feed primarily on ringed seals. Polar bears rely on the formed platform of sea ice to reach these seals.
- Polar Bears are unique because they are adapted to survive the harsh climate of the Arctic, where temperatures can plunge to -50o F.
- Polar bears have two layers of fur and a thick fat layer to insulate them, as well as compact ears and a small tail to prevent heat loss. Polar bear feet are furred and covered with small bumps called papillae to keep them from slipping on the ice. Their sense of smell is powerful for detecting seals.
- Their powerful claws can haul out a 150-200 lb. seal from the water for dinner- now that is some power!

### POLAR BEARS ARE IN TROUBLE!

- With a warming climate, the sea ice is not forming as early nor is it lasting as long. Less ice throughout the year is causing the Polar Bears to have a shorter hunting season.
- While polar bears primarily feed on seals, they are always alert to other food sources, such as plants, bird eggs, geese, and even small mammals. Though this might fill the belly of a bear temporarily, these land-based food items are not abundant enough to sustain them, and would negatively impact the grizzly bear, arctic fox, birds of prey and other species that rely on these food sources to survive.



### WHY SHOULD WE CARE?

Polar bears are what are known as an umbrella species; many organisms are connected to polar bears via a food web. Without this top predator the entire Arctic food web would be in disarray.

Each species is a specialist in terms of food, habitat, behavior, and therefore plays an important role in their ecosystem. If one species becomes extinct it can be a domino effect for all other species on this planet.

Climate change is not only affecting the survival of the polar bear and other arctic species, but will eventually affect the survival of humans as well.

### WHAT IS CAUSING CLIMATE CHANGE?

- Greenhouse gases (GHGs) in the atmosphere act like a blanket that keeps the earth warm. This protective blanket helps make our planet habitable. But over the past 200 years, humans have greatly increased the level of GHGs in the atmosphere by burning fossil fuels like natural gas, oil, and coal. This is like throwing on a second blanket, causing temperatures to rise. Other factors such as deforestation have added to the problem. Trees soak up carbon dioxide, one of the greenhouse gases, from the air. Fewer trees, especially in the tropics, means less CO<sub>2</sub> is removed from the atmosphere.
- **Trees naturally remove carbon dioxide from the atmosphere. Large forests create what are called carbon sinks- an area which absorbs more carbon than it releases. Tropical rainforests are among the largest and most productive carbon sinks in the world!**

### WE ARE MAKING A DIFFERENCE AND YOU CAN TOO!

- Since 2009 zookeepers, with the help of their local communities, have raised nearly \$160,000 and planted over 150,000 trees.
  - Individual actions can make a difference AND then you can inspire others to do the same! [Here are just a few things you can do:](#)
    - Reduce, Reuse, Recycle
    - Unplug electronic devices when not in use
    - Set up a “No Idle Zone” at school
    - Walk or Bicycle
    - Shop sustainable
    - Plant some trees
    - Vote for candidates who support action on climate change
    - Support food co-ops and farmers markets or grow your own food
    - Eat less meat and more sustainably produced beans, lentils, nuts and eggs
    - Complete an energy audit of your home
    - **Donate to the AAZK Trees for You and Me grant and aid in carbon reduction by going to [www.aazk.org](http://www.aazk.org) and clicking on the TFYM donation button!**

