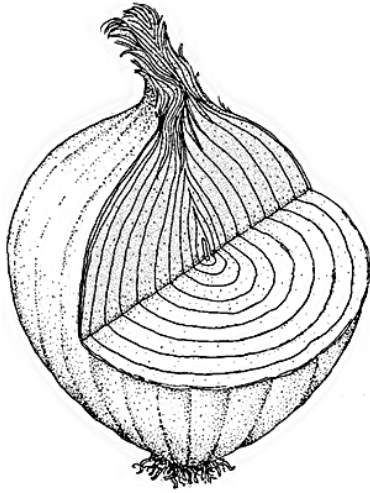


# Fun & Facts with Dunes!!!



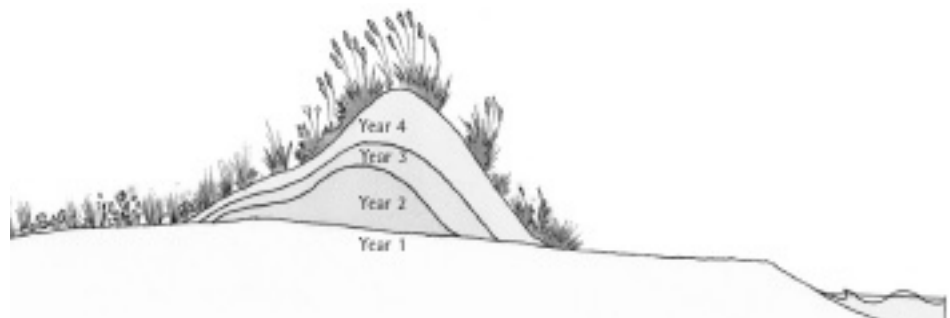
- **What is a dune?** Dunes are habitats for plants & animals that act as natural buffers to protect mainland & upland areas from the wind & wave action of our coasts

**How do dunes protect us?** Dunes absorb the destruction of high tides & storms by acting like a barrier & physically blocking waves. They are stockpiles of sand that you can think of as an onion. Dunes absorb the destructive energy of waves by being hit & absorbing the destructive energy of waves by having a layer of sand washed away in the ebb carried into the ocean

**What makes dunes strong?** A combination of things makes a dune strong. In the event of a storm, damage depends on the dune's height relative to the storm surge (this is why maintaining wide beaches is important), the depth of the dune system, & the vegetation.

- **Why do we plant grasses?** Plants make a dune a dune. A dune without plants is just a pile of sand that will wash away over time, like a sand castle. Plant's roots give the dune structure & act like a net binding the sand together. Meanwhile, their leaves (AKA shoots) trap sand that blows off of the beach in the wind & as a result the dune grows bigger.
- **What animals are on dunes?** Many vertebrate & invertebrates makes dunes their home, foxes, gulls, birds, turtles, crabs & endangered monarch butterflies are among the most common.
- **How can you help dunes?** (1) Volunteer with local environmental organizations in dune upkeep events; (2) keep off the dunes & keep your distance from fences so you don't slow down the dune growth; & (3) spread the word about why dunes are important & to help others understand why they are our best solution for protection.

- **Why are there fences by dunes?** Fences act like plant leaves to catch sand so the dune can grow bigger. Fences can be as effective at trapping sand as plants, but plants have the added benefit of growing in time with the dune whereas



fences need to be reinstalled or lifted & do not offer stabilization like roots. See picture above to understand how a dune grows over time with its plants. When you walk on the sand piled in front of fencing, you are walking on & hurting the progress of a growing baby dune (embryo dune).

## **For more information here are some great websites to learn more!**

- <http://coastalcare.org/educate/sand-dunes/>
- <http://www.islandbeachnj.org/Nature/physical/dunes.html>
- <http://www.nature.com/scitable/knowledge/library/coastal-dunes-geomorphology-25822000>
- [http://www.michigan.gov/dnr/0,4570,7-153-10370\\_22664-61314--,00.html](http://www.michigan.gov/dnr/0,4570,7-153-10370_22664-61314--,00.html)
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STOP

KEEP OFF THE DUNES