WORLD GEOGRAPHY ACADEMY

Norman, Oklahoma

Wednesday, October 22, 2014

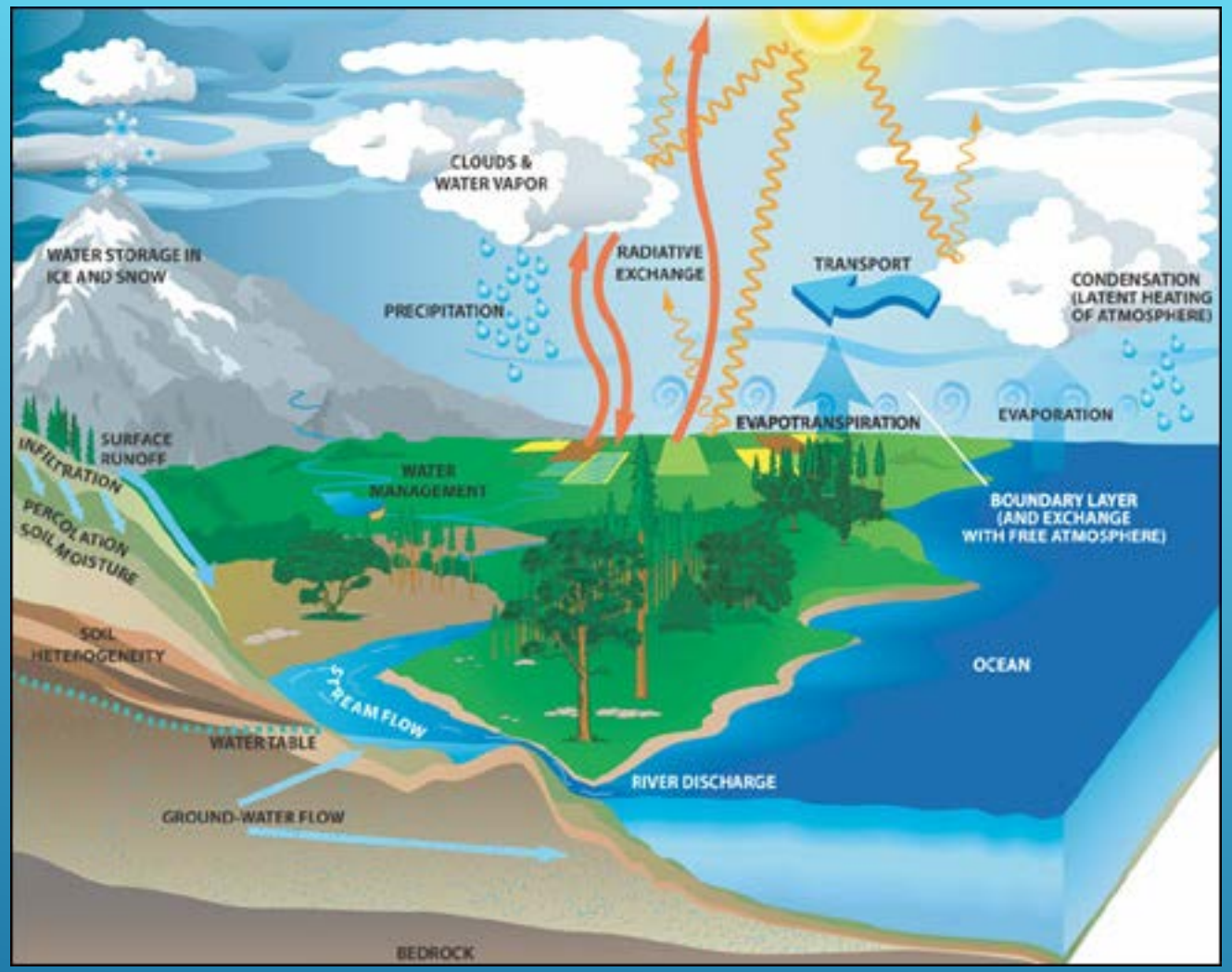
OUR FIVE OCEANS: EXQUISITE, ESSENTIAL, AND ENDANGERED PART 2

Presented by:

Lynn Tilley, NBCT

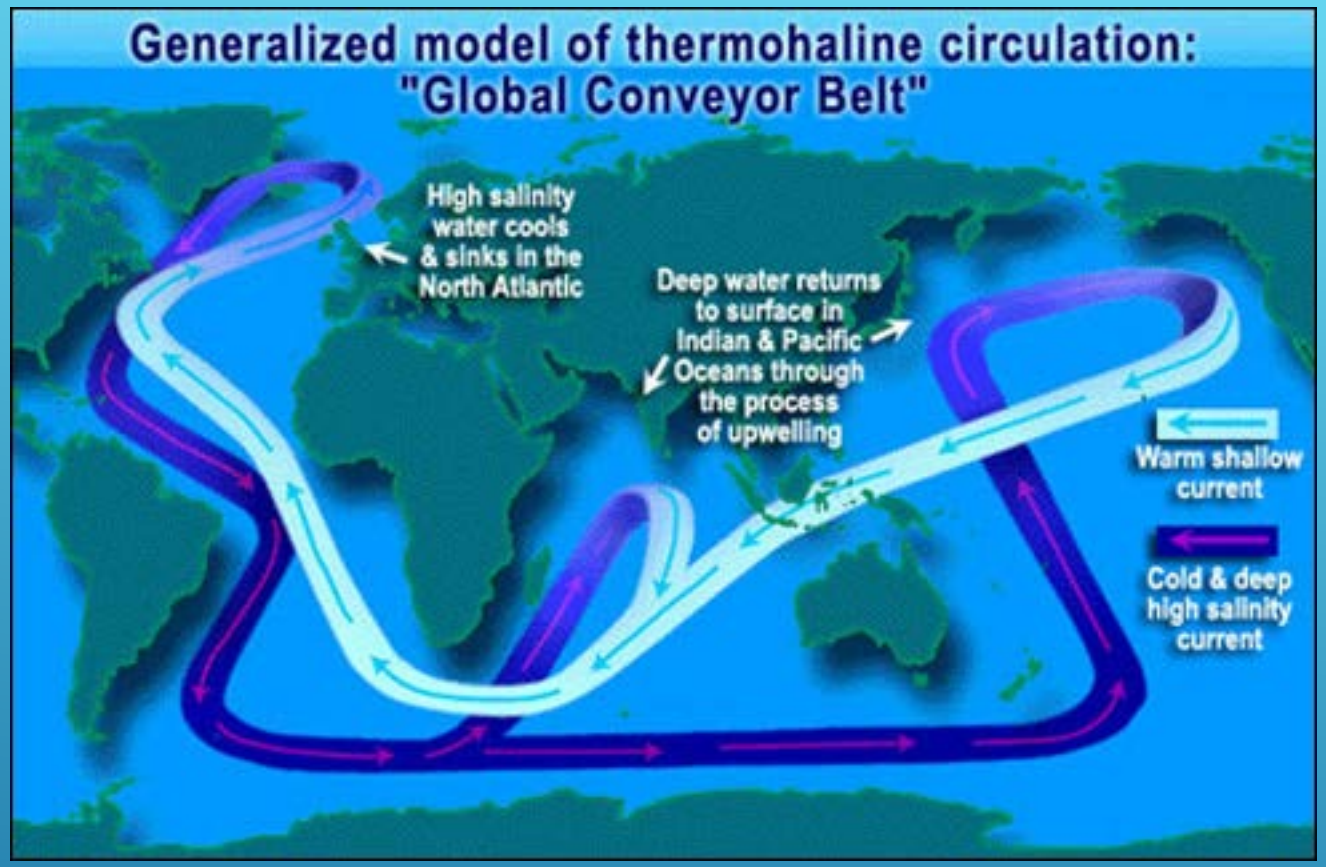
OKAGE Teacher Consultant

http://oceanleadership.org/the-oceans-sos/



http://science.nasa.gov/media/medialibrary/2010/03/31/water_cycle.jpg

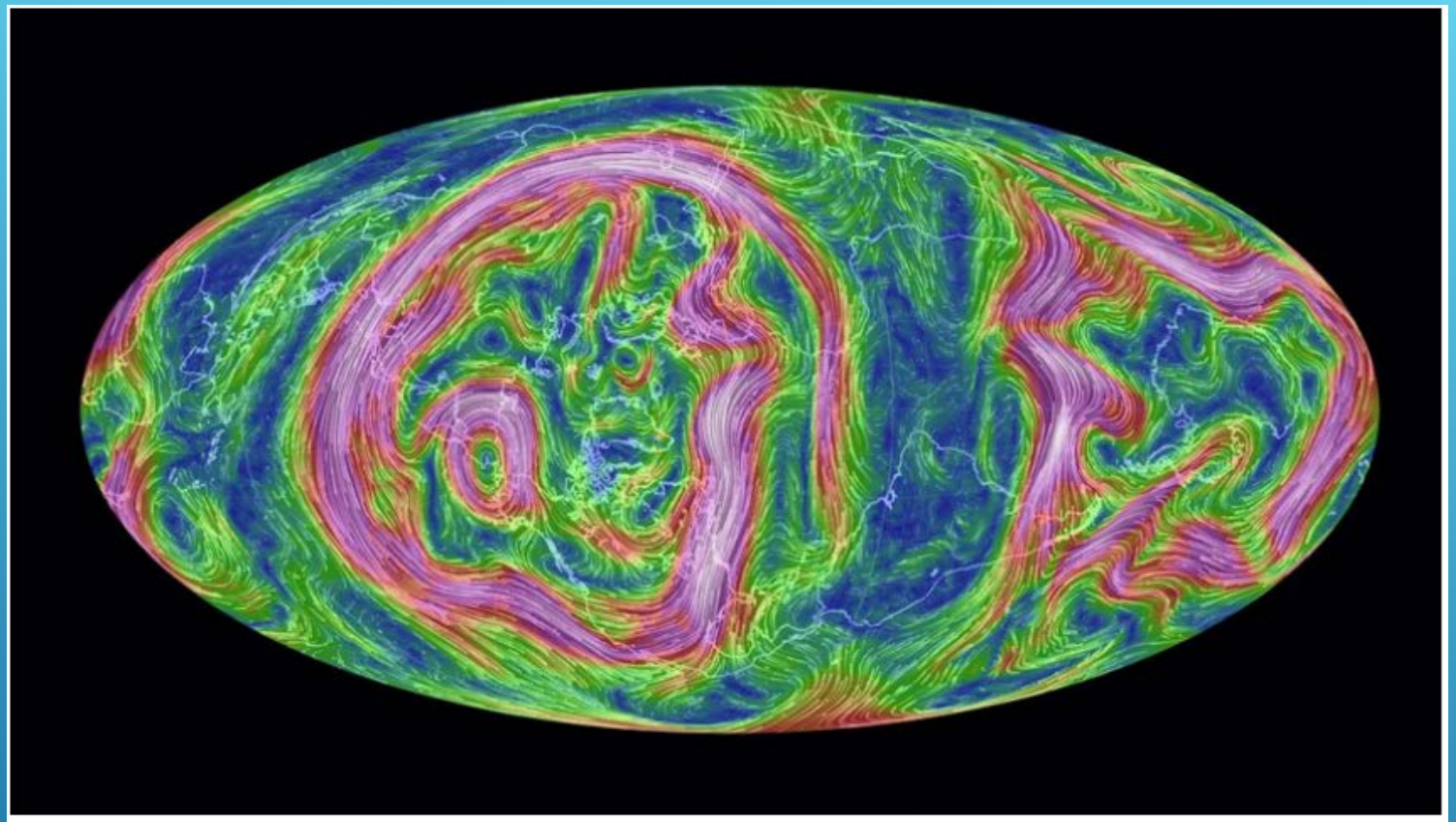
Oceans are part of the water cycle.



http://science.nasa.gov/media/medialibrary/2010/03/31/CONVEYOR.jpg

This graphic shows a large scale type of ocean circulation that affects climates.

Oceans drive climate and weather systems.



Source: earth.nullschool.net

Feb 6, 2014. The project is a visualization of global weather conditions forecast by supercomputers updated every three hours, with ocean surface current estimates updated every five days.

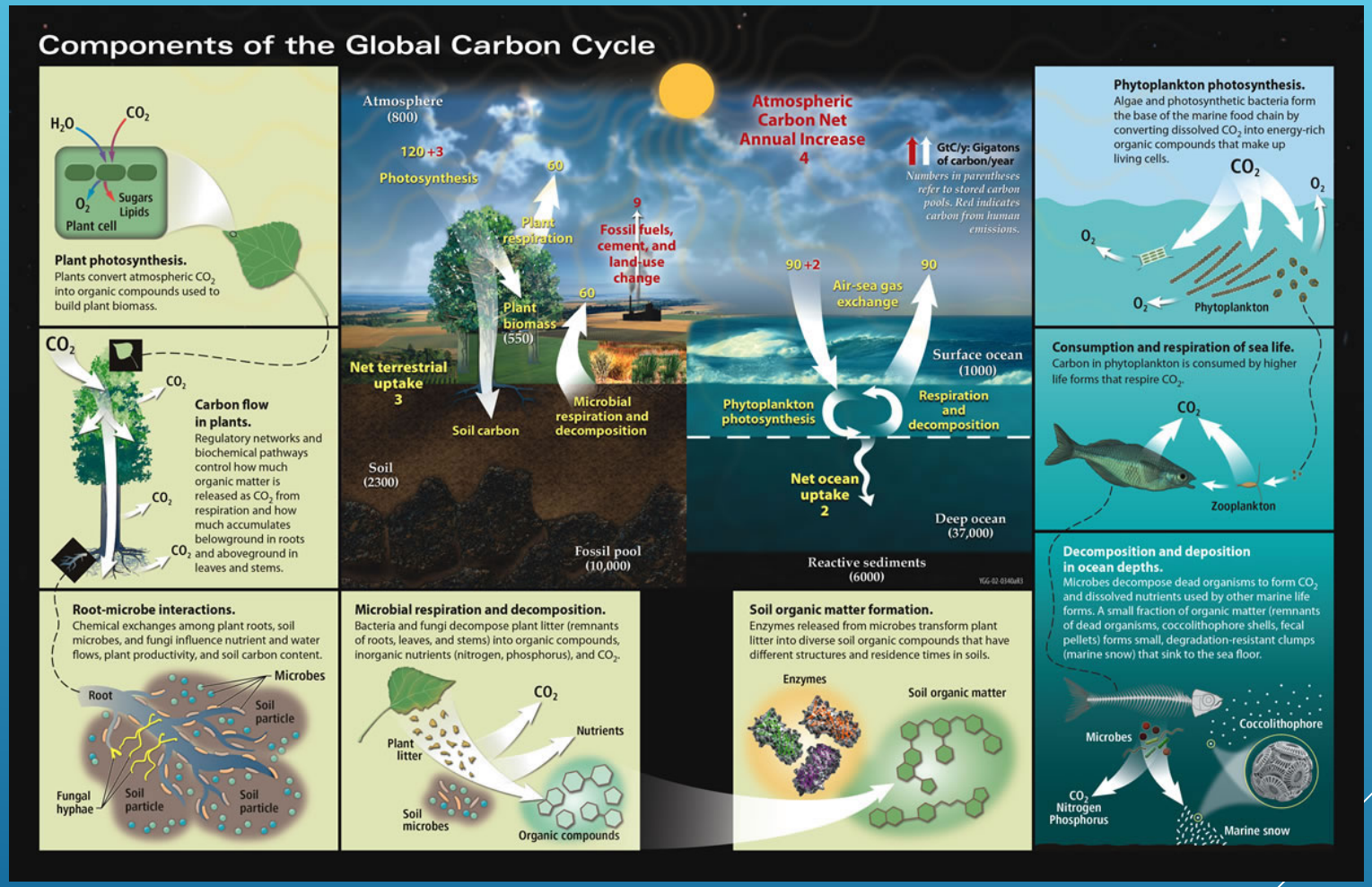
http://www.bloomberg.com/news/2014-02-07/data-made-beautiful-weather-climate-and-fracking-water.html

A visualization of data

Play NASA / The Ocean: A Driving Force for Weather and Climate (6:00)

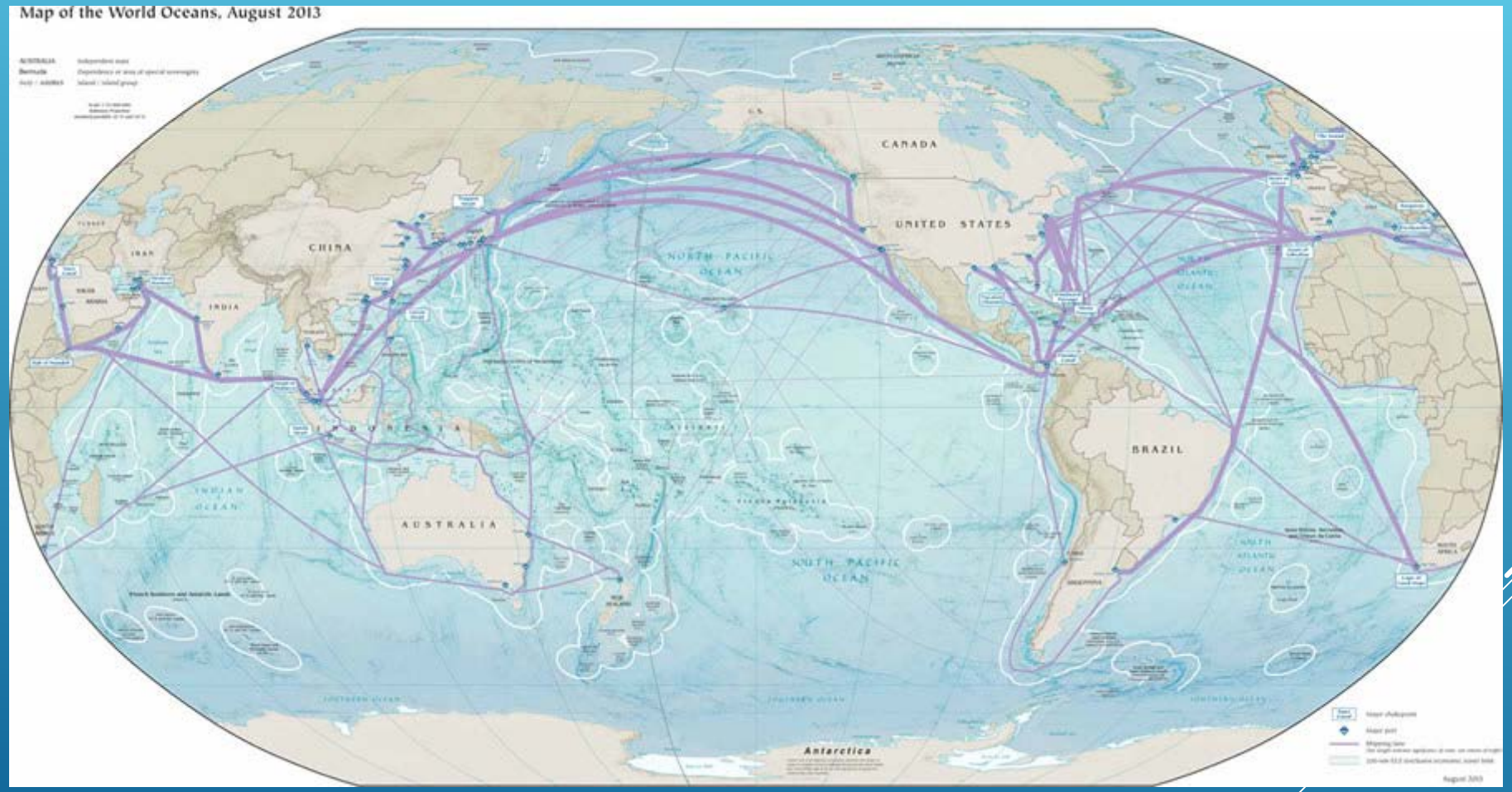
http://youtu.be/6vgvTeuoDWY

Oceans play an important role in the Global Carbon Cycle.



https://www.carboncyclescience.us/sites/default/files/Components-of-Global-Carbon-Cycle-DOE_0.jpg

Oceans serve as a transportation highway, allowing people and goods to move around the globe.



https://www.cia.gov/library/publications/the-world-factbook/docs/refmaps.html

Oceans influence and affect the economic well-being of nations.

All photos this page:
http://oceanpolicy.com/about-our-oceans/oceans-impact-the-economy/

http://3.bp.blogspot.com/-qKTlbwsYprA/T98Mvfpj09I/AAAAAAAACss/p1dzS_ExCgY/s1600/Ocean-Beautiful-Wallpaper.jpg

Today Earth’s oceans are facing important challenges.

http://www.edf.org/blog/2013/11/14/five-ways-climate-change-affecting-our-oceans

Coral Bleaching – Temperature changes causing death of coral.

http://i.telegraph.co.uk/multimedia/archive/01365/one-iceberg-left_1365261i.jpg

Polar Bear Habitat Changing

Climate change is believed to create a major challenge to the health of oceans.

http://www.huffingtonpost.com/2014/08/28/louisiana-sea-level-rise_n_5731916.html

Louisiana’s coastal wetlands are vanishing because of several factors, including rising sea levels.

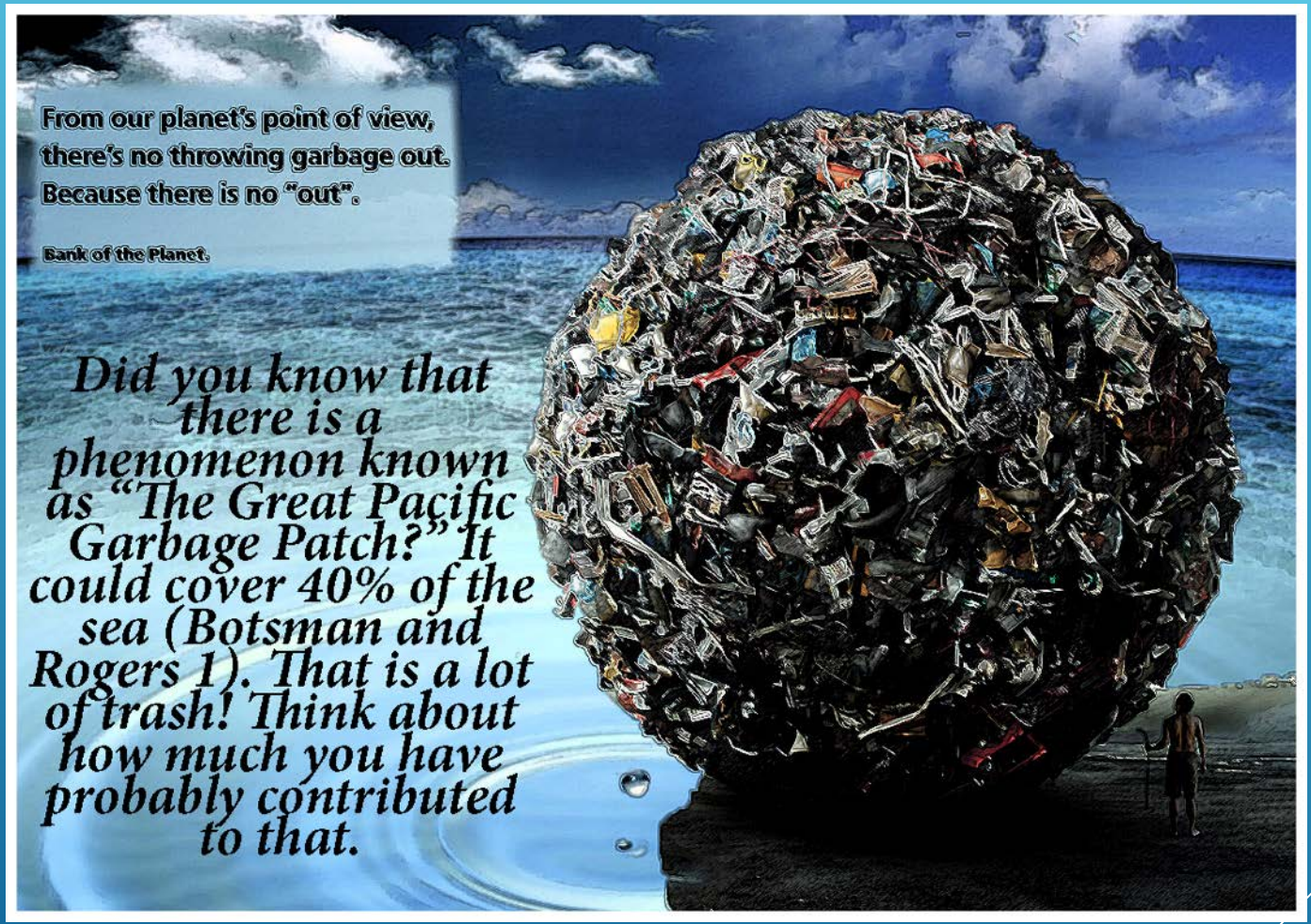
A time-lapse view of Louisiana’s disappearing wetlands

http://news.nationalgeographic.com/news/bigphotos/6020040.html

According to National Geographic, “King penguin populations on the Crozet Archipelago in the Indian Ocean are declining because of climate change, a new study says. Warmer seas are forcing the birds to travel longer distances to find their native prey.”

http://news.nationalgeographic.com/news/bigphotos/6020040.html

Pollution is another major challenge affecting oceans.

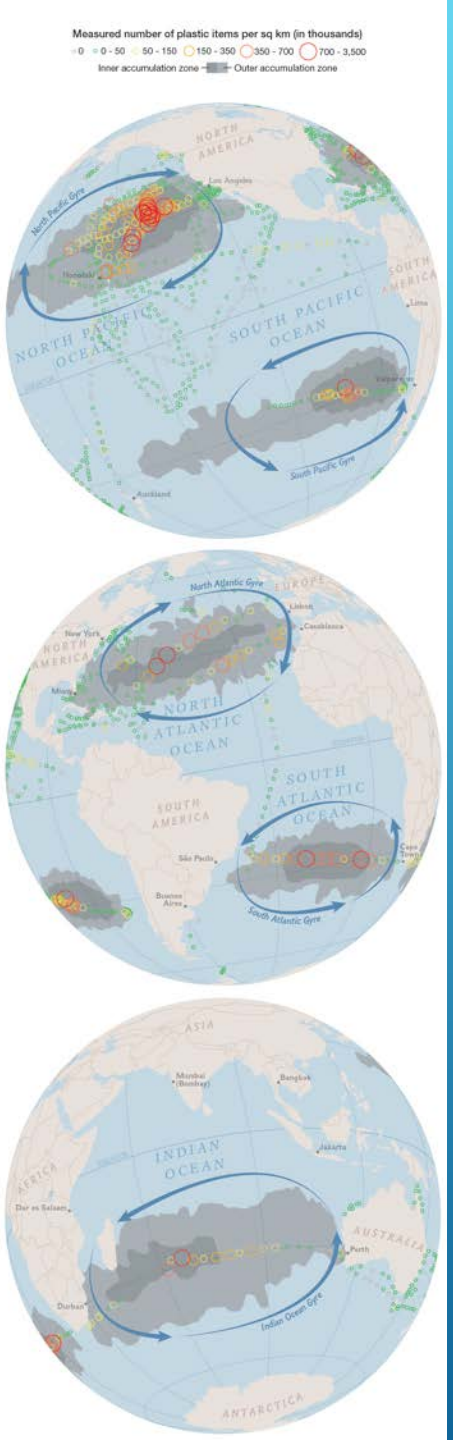


http://dgreenwriting.files.wordpress.com/2013/09/great-pacific-garbage-patch.jpg

Pacific Ocean

Atlantic Ocean

Indian Ocean



Tens of thousands of tons of floating plastic trash are found in the Earth's oceans.

http://assets.knowledge.allianz.com/img/pacific_ocean_garbage_patch_pollution_plastic_trawl_sample_charles_moore_q_48870.jpg

http://news.nationalgeographic.com/news/2014/07/140715-ocean-plastic-debris-trash-pacific-garbage-patch/

http://www.mbari.org/seminars/2009/Spring_09/Cummins_June.htm

Plastic has entered the food chain.

Other sea life is affected by plastic garbage.

All Images this page:
http://sprinterlife.com/2012/01/pacific-trash-vortex.html

http://sprinterlife.com/wp-content/uploads/2012/01/tires.jpg

http://oceanbites.org/wp-content/uploads/2014/04/plastic-ocean-garbage.jpg

http://www.localphilosophy.com/images/article-images/img_Great-Pacific-Garbage-Patch_2.jpg

http://www.thestory.org/sites/default/files/public/images/thumbnails/story/3a75607d29ab2bd4129111fe36eb572d.jpg

Ghost Nets

http://news.bbcimg.co.uk/media/images/61402000/jpg/_61402955_61402954.jpg

Whale

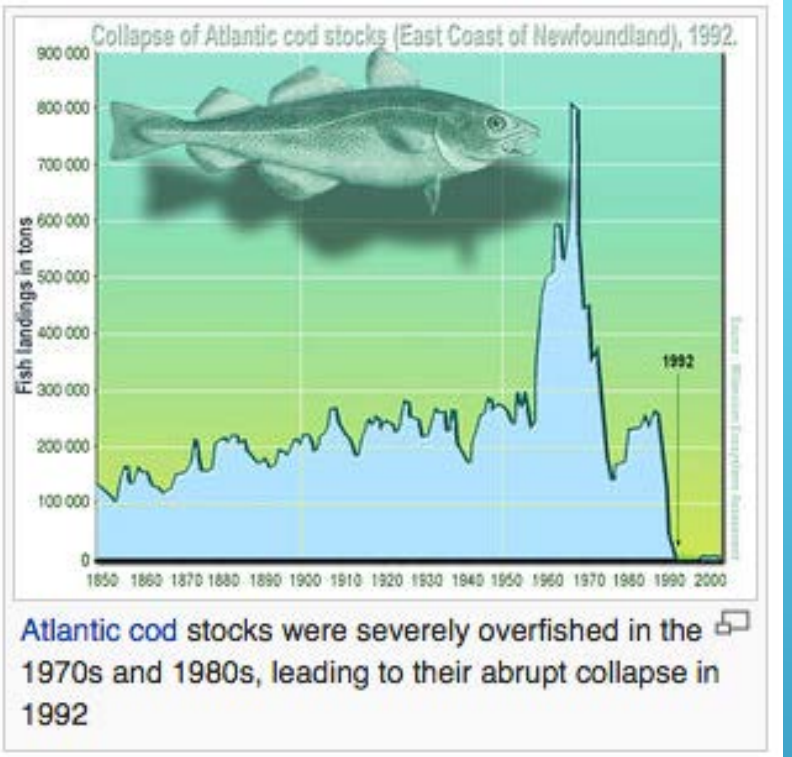
http://aquariusdivingclub.files.wordpress.com/2013/02/turtle-struggle.jpg

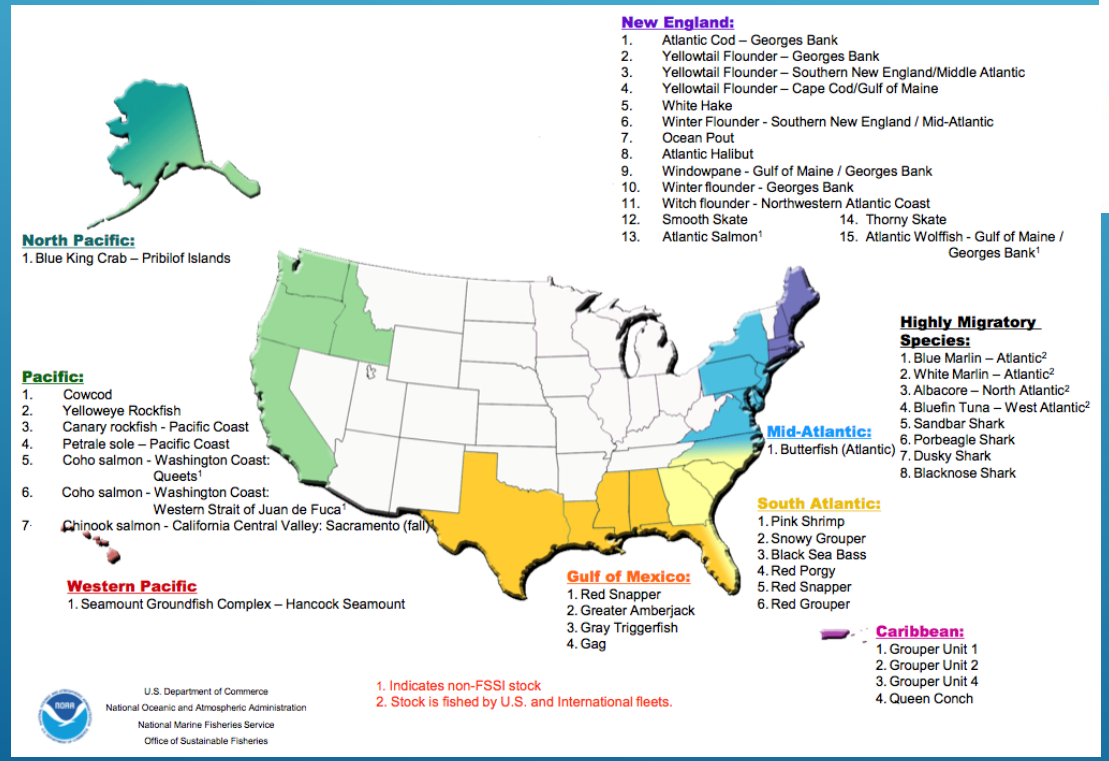
Turtle

Play Marine Debris: An Ocean Story by NOAA Ocean Media Center (3:07)

http://youtu.be/BArs4rSm6k4

http://waittfoundation.org/wp-content/blogs.dir/9/files/ocean/edf-fishing-boat.jpg





http://en.wikipedia.org/wiki/Overfishing#mediaviewer/File:Overfished_US_stocks_2010.png

http://en.wikipedia.org/wiki/Overfishing

Overfishing is a major challenge affecting oceans.

The physical systems of the oceans and life on Planet Earth are interconnected.

http://ichef.bbci.co.uk/wwfeatures/624_351/images/live/p0/0y/6y/p00y6yq5.jpg

Earth’s oceans need to be protected.

http://1.bp.blogspot.com/-vmKQBLayroM/Ty6XSZFnvzI/AAAAAAAAAXQ/dDxU2OvqOMQ/s1600/Beautiful-Beach-Marie-Galante-Island.jpg

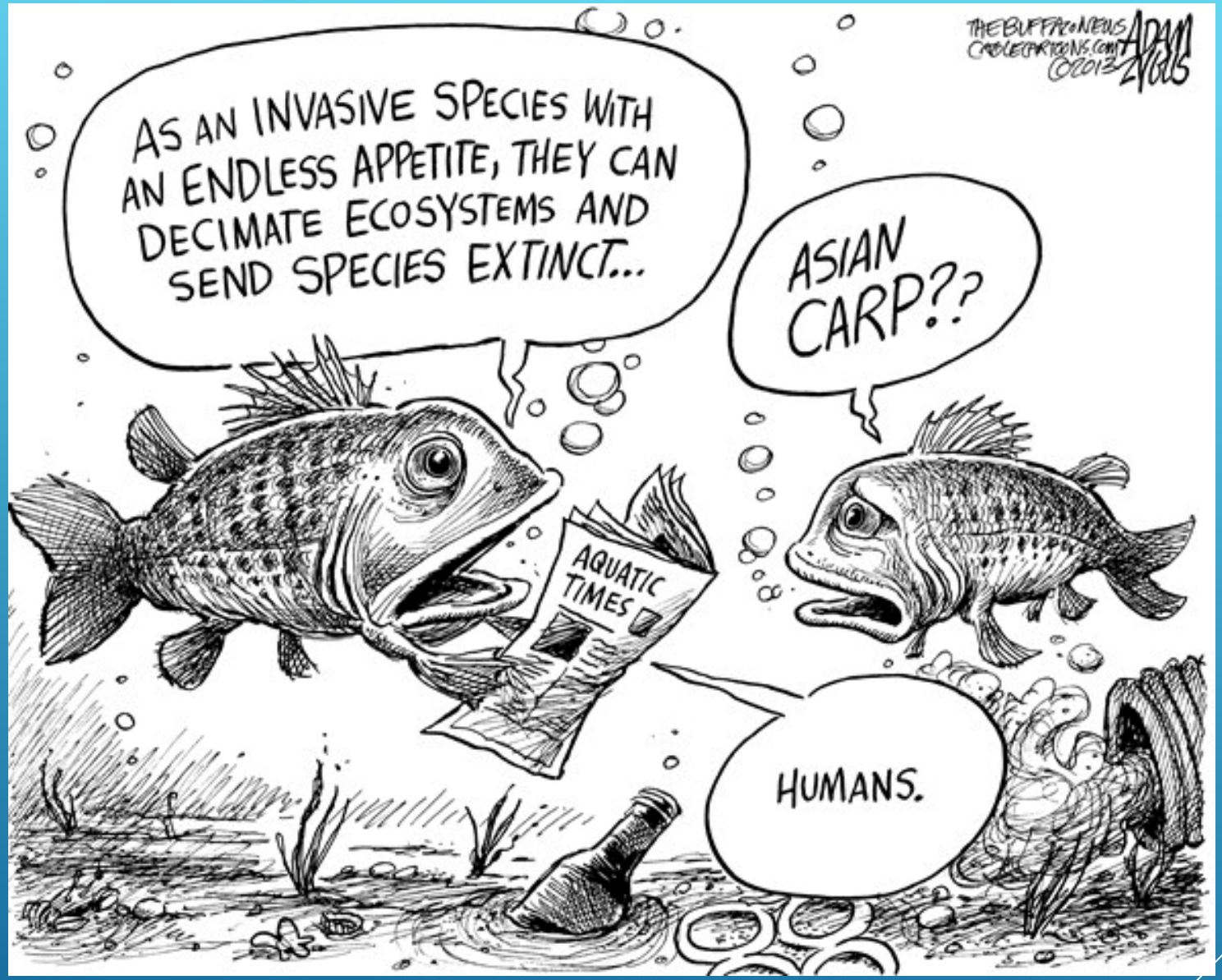
What happens to oceans affects all life on Earth.

http://mommybites.com/wp-content/uploads/2012/05/iStock_child-on-beach.jpg

If the oceans are the reason that life exists on Planet Earth…….

http://terawallpaper.com/moon-from-space-nasa/

Then, without the oceans…… ?



http://media.cagle.com/82/2013/05/31/132538_600.jpg

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