

Turtle Notes

- " Caribbean coast of CR is 4th most important nesting turtle spot
 - " leatherback, green, hawksbill
 - " CR has 6/8 at any time
 - " point = we protect from poachers
 - " leatherback eggs considered aphrodisiac
 - " green turtle - turtle soup - traditional, now illegal
 - " hawksbill turtle - hunted 4 shell
 - " sent to Nicaragua or Japan
 - " tortoise shell souvenirs, etc
 - " eggs taken from poachers to hatchery by Coast Guard
 - " Leatherback is unique
 - " ability to perform deep dives
 - " ability to thermoregulate
 - " temperature of sand determines sex, so has to go back to tropical areas
 - " has wider range of feeding ground
 - " largest - 2000 lbs. 10 ft. long
 - " size gives ability to thermoregulate - thick fatty layer means she can maintain 30° C body temperature
 - " smallest lungs - can collapse lungs
 - " more oxygen stored in body than others
 - " can dive at 3,300 ft. for 30 min.
 - " 15-min avg. dives - quick dives
 - " spend majority of the underwater - 99%
 - " only 1% of life on land
 - " trying to get info. on what happens once turtles leave beach
 - " 1/1000 hatchling survive
 - " humans = #1 predator
 - " In Panama, turtles being killed for meat and eggs
 - " Guanacaste turtles killed in Chile
 - " tagging green turtles - strict in nesting - specific
 - " leatherbacks flexible in nesting area
 - " leatherbacks choking on garbage in US
 - " global warming garbage changing temperature of sand - sex determination messed up
 - " what we do in US does affect turtles
 - " don't think Pacuare is isolated
 - " leatherbacks - lay 5-8 times per nesting season (every 2-3 years)
 - " they're coming back after 1 year - good
 - " information we get - very important
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Turtle Article Notes

Hatchling Orientation

- " know to wait for nightfall
- " special tooth
- " short ray lights attract
- " wide horizontal view, see horizon
- " when blindfolded, can't find sea
- " natural magnetic compass - can tell whether near shore or far away

Light Pollution Problems

- " lights confuse hatchlings
- " putting plastic over light, stadium lights, yellow light, lights off
- " yellow light still affects leatherbacks
- " 90 deg. angle is better for hatchlings
- " opaque plastic covers
- " red light doesn't affect

Biology of Early Pelagic Stage of Lost Years

- " we don't know what happens when in water
- " Pelagic=deep ocean waters-zone of ocean
- " swimming frenzy of hatchlings
- " moving with currents
- " really a lost decade
- " bags look like jellyfish - choking
- " trash and fishing nets inhibits them
- " driftlines - Gulf Stream current
- " have 48 hours of food when they emerge - has to last until they get to feeding ground

Sea Turtle Excluder Devices

- " shrimpers need to get shrimp, but catch turtles
- " one solution to problem
- " want to reduce # of turtles not reduce # of shrimp
- " 3% turtles 97% bycatch
- " 1978 - movement to build devices began
- " best time to catch shrimp interferes with turtle nesting season
- " big loss to lose adult turtle
- " Kemp's Ridley - only nests in 1 place - also big shrimping area
- " South Padre Island - trying to get them to nest
- " selective shrimp trawls will allow for less bycatch
- " 2 types of barriers on shrimp nets
 - " in front - forward excluder barrier let turtles get over net
 - " shrimpers tested and it wasn't very good
 - " reverse excluder - only turtles that are small enough can pass through - can be adjusted

- " juvenile olive ridleys caught
- " dead turtles washing up - over 100 in May in VA alone
- " only 8-10% of dead turtles washing up
- " are TED s doing their job?
 - " 1989 - implemented
 - " 1994 - everywhere
 - " still dying in record numbers
 - " it was thought they would reduce by 97%
 - " most turtles are too big to get through TED opening
 - " TED s are not big enough
- " long-line fishing
- " albacore uses buffer for turtles

North Carolina

- " basic info about what to do
- " pre-dated dinos - haven t changed too much
- " precautions if you see nesting female
 1. don t shine lights
 2. Stay away from female
 3. Don t touch nest markers
- " hatchling can get caught in tire tracks
- " strandings - injured o killed
- " call authorities
- " FAQ s section
 - " low-pressure sodium vapor light - doesn t attract turtles, but very expensive
 - " rarely need white light
 - " you can dispose of them
 - " any lights can disorient
 - " eggs can t be moved after 4 hours of being laid or turtles will drown in yolk
 - " want to manage light and provide function
 - " what good are sea turtles? - it s important even if we don t understand

Hawksbill Nesting and Conservation Program

- " located in Pearl Cays, Nicaragua
- " little was known about hawksbill populations until Lagueux, Campbell, and McCoy decided to study them
- " weekly beach surveys showed that almost 100% turtles were being poached
- " when a Nicaraguan fisherman found out, he started a community project to help the turtles
- " this project would not have been possible without the help and cooperation of the locals
- " with community meetings, everyone got involved
- " in one year, the percent of turtles being poached decreased to only 30%
- " an excellent example of a successful community project

Loggerhead Turtles

- " scared easily when nesting
- " takes 20 years for loggerhead to reach maturity
- " going towards extinction
- " Yakushima - important loggerhead nesting site
- " Sea Turtle Association of Japan - set up education programs
- " one businessman treats turtles like tourist attractions- but says it's good because tourists are interesting in and connected to the turtle
- " Shiva- businessman - ignorant about sea turtles
 - " cuts grass and looks like horizon
 - " shines light in eyes
 - " makes tourists pay mucho \$
- " Onuda - scientist says this is bad!

Brazil

- " Tamar - ibama
- " 5/7 species found in Brazil, all endangered
- " 4-wheel drive vehicles compact sand - turtles can't climb out
- " Petro-ross = oil company trying to help Tamar
- " educating community
- " community involvement
- " good partnerships and fundraising
- " internships very active
- " one increase in turtle population

Chesapeake

- " loggerheads, Kemp's ridley
- " VIMS (Virginia Institute of Marine Science)
- " trying to collect info. about how turtles were being killed
- " 2000-3000 have visited (loggerheads) each year
- " ridleys - not easy to spot
- " 300 coming into bay - maybe only 600 left in the world
- " thousands of turtles come up in VA