




SEA TURTLE PROJECT







GlobeAware
ADVENTURES IN SERVICE

SEA TURTLE AROUND THE GLOBE

7 species of sea turtles grace our ocean waters and most are endangered

		
LEATHERBACK <i>Dermochelys coriacea</i>	LOGGERHEAD <i>Caretta caretta</i>	GREEN TURTLE <i>Chelonia mydas</i>
STATUS: Vulnerable	STATUS: Vulnerable	STATUS: Endangered
LENGTH: 55-63 inches	LENGTH: 33-49 inches	LENGTH: 31-47 inches
DIET: Jellyfish	DIET: Clams, sea urchins	DIET: Seagrass

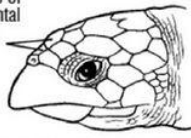
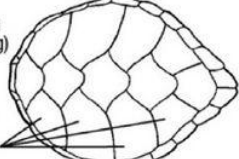
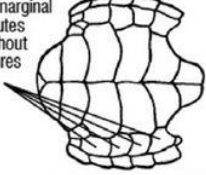
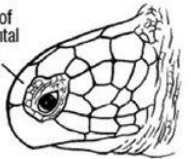
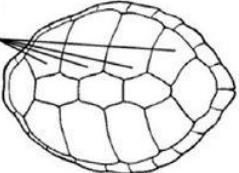
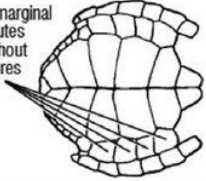
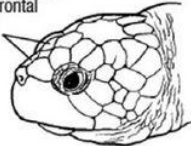
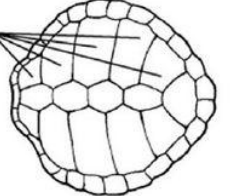
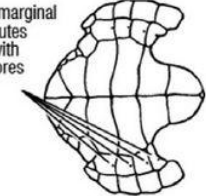
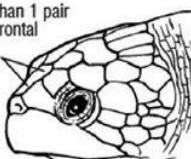
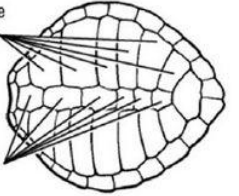
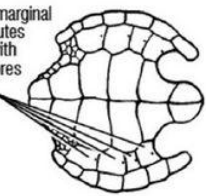
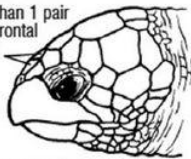
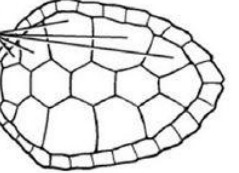
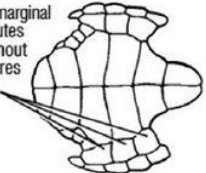
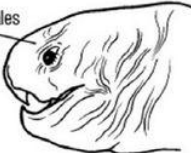
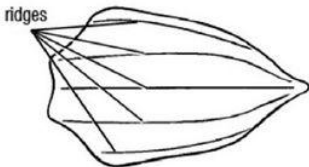
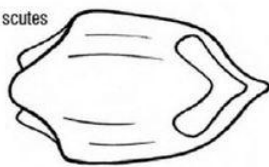
			
FLATBACK <i>Natator depressus</i>	HAWKSBILL <i>Eretmochelys imbricata</i>	KEMP'S RIDLEY <i>Lepidochelys kempii</i>	OLIVE RIDLEY <i>Lepidochelys olivacea</i>
STATUS: Data Deficient	STATUS: Critically Endangered	STATUS: Critically Endangered	STATUS: Vulnerable
LENGTH: 31-37 inches	LENGTH: 30-35 inches	LENGTH: 24-28 inches	LENGTH: 24-28 inches
DIET: Crabs, other crustaceans, mollusks	DIET: Sponges, sea anemones	DIET: Crabs, other crustaceans, mollusks	DIET: Crabs, other crustaceans, mollusks

5 species found in Galapagos:

- Green (Nesting)
- Hawksbill (Uncommon)
- Olive ridley (rare in Galapagos, extremely common on Ecuador mainland with nesting activity)
- Loggerhead (extremely rare)
- Leatherback (extremely rare)

Sea turtles have played vital roles in maintaining the health of the world's oceans for more than 100 million years. These roles range from maintaining productive coral reef ecosystems to transporting essential nutrients from the oceans to beaches and coastal dunes

SPECIES IDENTIFICATION

head	carapace	plastron
2 pairs of prefrontal scales 	scutes imbricated (overlapping) 4 lateral scutes 	4 inframarginal scutes without pores 
1 pair of prefrontal scales 	4 lateral scutes 	4 inframarginal scutes without pores 
more than 1 pair of prefrontal scales 	5 lateral scutes 	4 inframarginal scutes with pores 
more than 1 pair of prefrontal scales 	6 or more lateral scutes 6 or more vertebral scutes 	4 inframarginal scutes with pores 
more than 1 pair of prefrontal scales 	5 lateral scutes 	3 inframarginal scutes without pores 
no scales 	ridges 	no scutes 

Hawksbill - *Eretmochelys imbricata*

Green turtle - *Chelonia mydas*

Kemp's ridley - *Lepidochelys kempii*

Olive ridley - *Lepidochelys olivacea*

Loggerhead - *Caretta caretta*

Leatherback - *Dermochelys coriacea*



Some vocabulary :

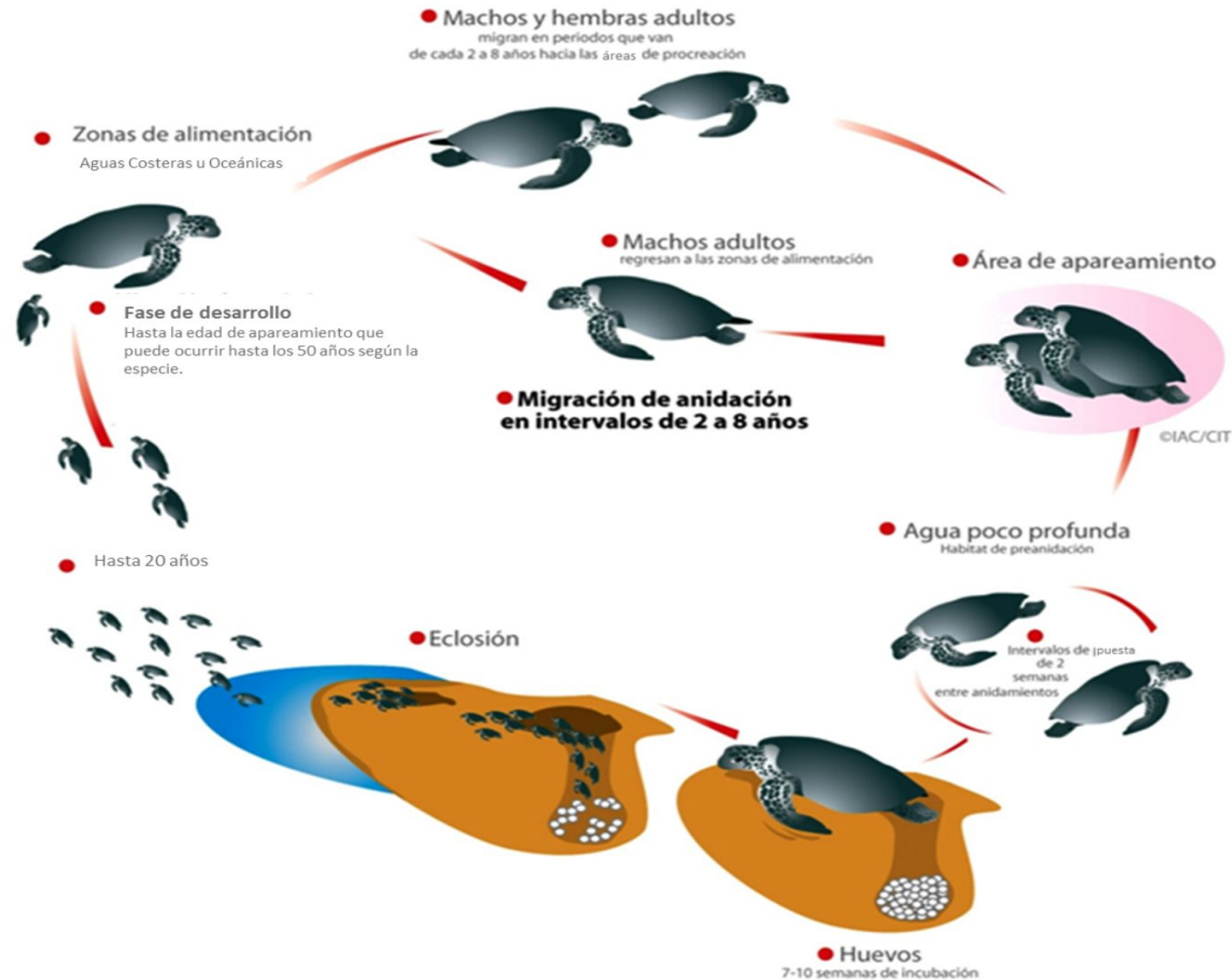
Scales found on the head
Scutes found on the shell

Pores found on the
plastron

Flippers as arms and legs

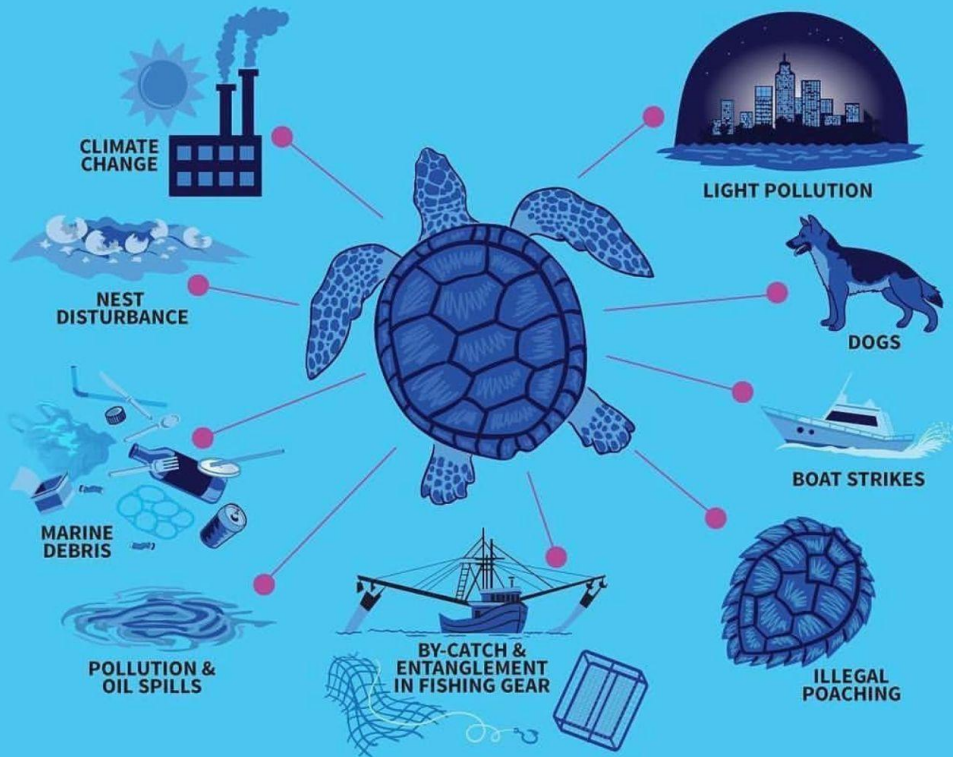
Tail

SEA TURTLE'S LIFE CYCLE



THREATS

THREATS TO SEA TURTLES



Fisheries : annually, 250,000 sea turtle deaths are caused by fisheries/ bycatch

Climate change : marine turtle have a temperature-dependant sex determination

Approximately only **1 in 1,000** sea turtles survive to adulthood

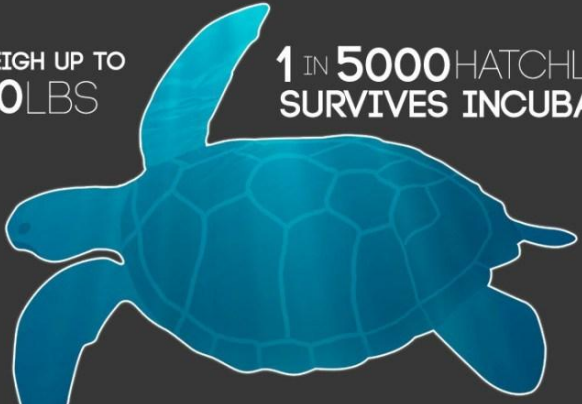
THE GREEN SEA TURTLE

(*Chelonia mydas*)

GREEN SEA TURTLES (HONU)

CAN WEIGH UP TO **700 LBS**

1 IN 5000 HATCHLINGS SURVIVES INCUBATION

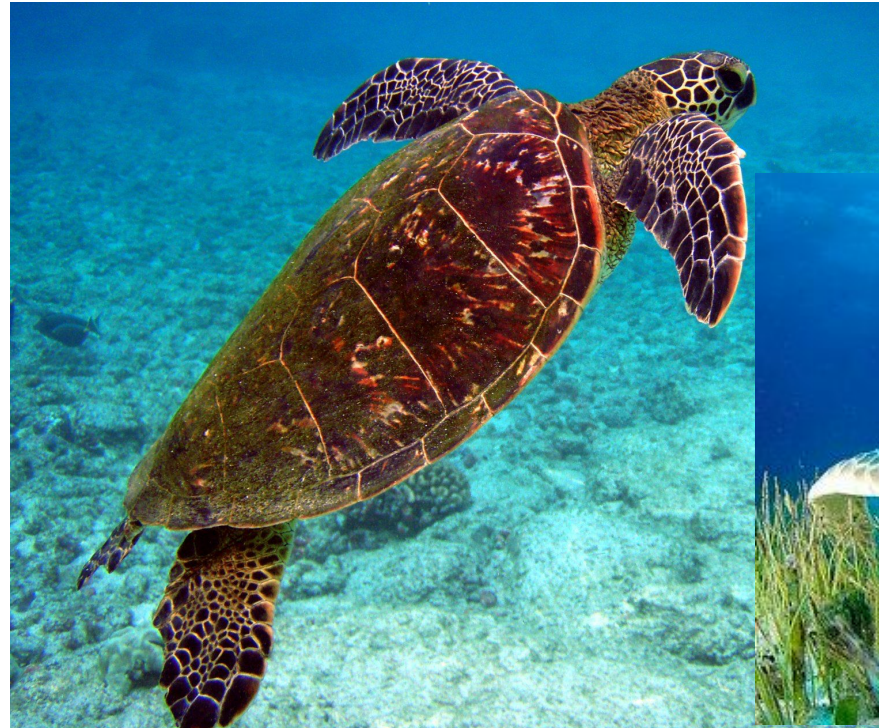
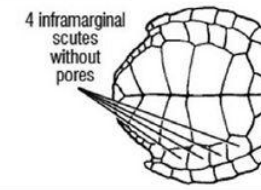
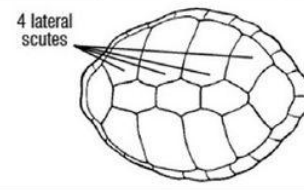
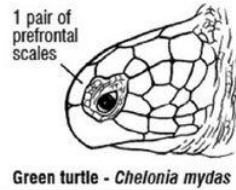


CAN GROW UP TO **5 FT**

SEA TURTLE AVERAGE LIFESPAN **80 YRS**

INCUBATION	~60 DAYS
JUVENILE	3-7 YEARS
REACH SEXUAL MATURITY	25-35 YEARS OLD

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HOW YOU CAN HELP

- Purchase local and sustainable seafood
- Avoid purchasing turtle products
- Support sea turtle ecotourism
- Build awareness



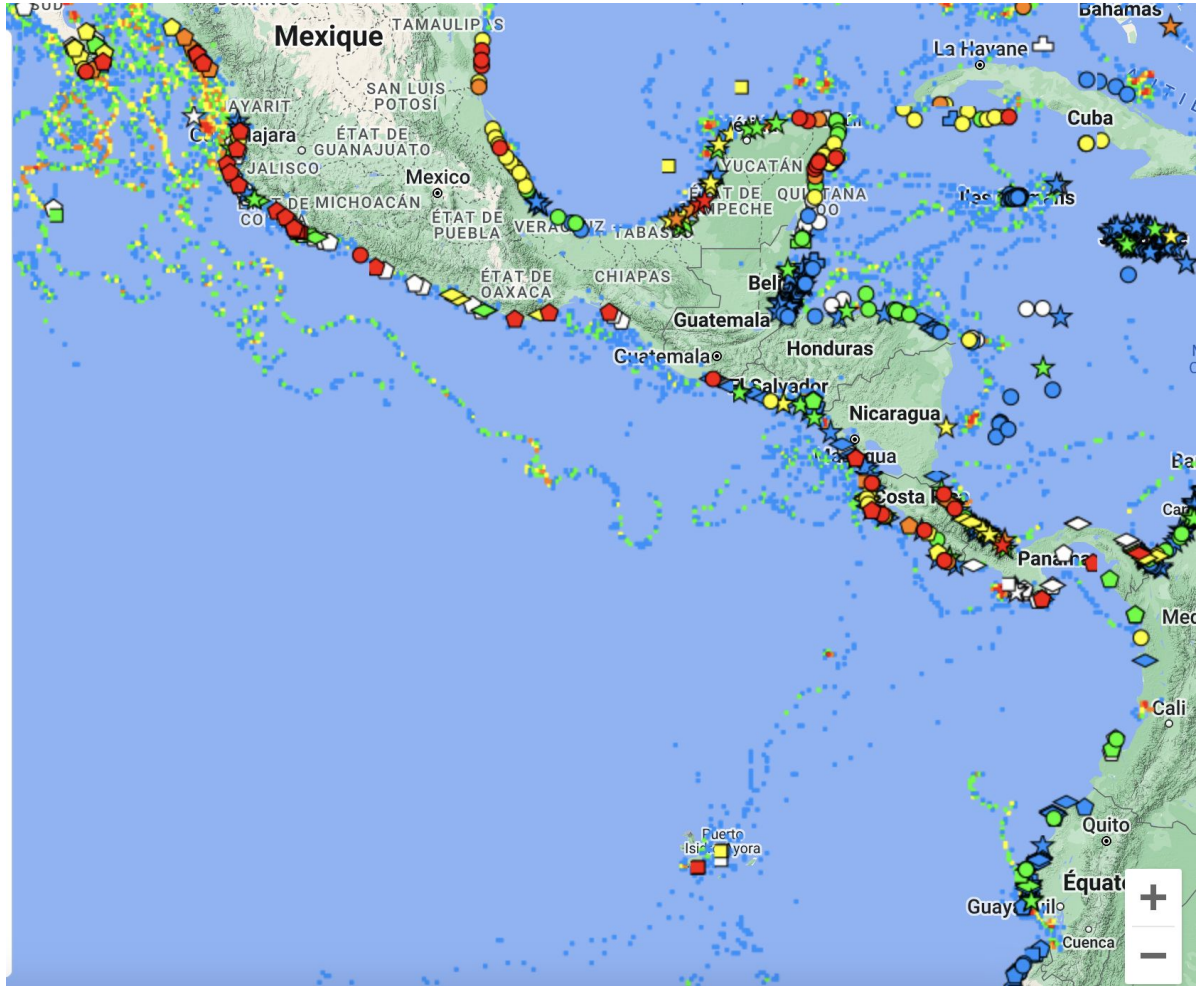


HOW YOU CAN HELP

VOLUNTEERING !

(And it is also good for you)

THE SEA TURTLES IN GALAPAGOS



2nd most important area for green turtles nesting activity

Nesting activity on three main island in Galapagos

Maps from SWOT (State of the World's Sea Turtles)

PUERTO VILLAMIL'S PROGRAM

Main objective → evaluate the anthropogenic threats on the green turtle's nidification on Puerto Villamil's beach included in a citizen sciences program that will offer the opportunity to collect information in order to mitigate the impact and raise awareness around this species.

Specifics objectives :

- Identify the anthropogenic threats on Puerto Villamil's beach thanks to actions that include the community
- Reduce the anthropogenic threats at the green turtle's nidification in Puerto Villamil
- Raise awareness in Puerto Villamil's community on the importance of the green turtle as a source of socio-economics services
- Establish conservation strategies in order to mitigate the anthropogenic threats in Puerto Villamil



MONITORED BEACH



THE RULES TO FOLLOW ON SEA TURTLES' MONITORING

- Do not approach, touch or stand in front of turtles
 - Do not interfere with the natural cycle
 - Do not take any pictures at night time of the turtles and neonatos
 - Do not run, shout or play any music during the walks on the beach
-
- Always follow the instructions of the ranger and/or coordinator
 - Always walk in the intertidal zone
 - Always use red or infrared lights when close to turtles
 - Always wear obscur clothes during night patrols
 - Always wear your IOI vest !!

THE DATA WE ARE LOOKING FOR

On the nests :

- Localisation
- Number of eggs laid
- Number of eggs hatched
- Threats identified

On the females :

- Tags numbers and size (only if tags observed)
- Damages on the individual

On the beach :

- Beach profile
- Threats identified



WHAT YOU SHOULD BRING

- A phone to communicate with your leader / whatsapp group, if you don't have international data you need to upload and communicate after walks on wifi connection
- The turtle monitoring backpack with your tools
- Data sheets
- IOI vests and IOI identification
- Gloves
- Red LED torch

OTHER RESPONSIBILITIES:

- Attend organized excavations
- Attend kikuyo cleaning, beach profile measurements and anthropogenic threat evaluation
- Attend IOI volunteer meetings once a week (required per your transient visa)



AM / PM PROCEDURE

Daily activity

- 06:00 am : walk on the beach to look for tracks
- 09:00 am : kikuyo extraction (2x a week) + waste sorting (1x a week)
- at night : walk on the beach to look for femelle and nesting activity

Every 15 days

- Anthropogenic threats evaluation (Monday 8th April)

Every month

- Beach profile measurements (Thursday 4th April)

Occasional activities like excavations



PROTOCOLES AND SPREADSHEETS

- Manual sobre técnicas de manejo para la conservación de las tortugas marinas en playas de anidación (Convención Interamericana para la Protección y Conservación de Tortugas Marinas)
- Manual para el monitoreo de anidación de la tortugas verde *Chelonia mydas* en Galápagos. Fundacion Charles Darwin



PROCOLES AND SPREADSHEETS

Meeting tomorrow, Wednesday at 2:30 pm
to go through the manuals and protocols

Mandatory for new volunteers



THANK YOU FOR SUPPORTING THIS VITAL
WORK!

QUESTIONS?

Sources :

- Beth and al., 2023. Exploring the effects of volunteering on the social, mental and physical health and well-being of volunteers: an umbrella review. *Voluntas: International Journal of Voluntary and Nonprofit Organizations*.
- Convención Interamericana para la Protección y Conservación de las Tortugas Marinas (CIT). 2011. Manual Sobre Técnicas de Manejo para la Conservación de las Tortugas Marinas en Playas de Anidación.
- Parra D.M., Andrés A.M., 2012. Manual para el monitoreo de anidación de la tortuga verde *Chelonia mydas* en Galápagos. Documento Técnico. Fundación Charles Darwin. Puerto Ayora, Galápagos, Ecuador.
- The State of the World's Sea Turtles hosted on OBIS-SEAMAP.
<https://seamap.env.duke.edu/swot>, consulted on the 2023-12-22 14:19:25