



INVESTIGATING  
A TURTLE NEST SITE  
AT RAMLA BAY, GOZO

## *INTRODUCTION*

- On Friday 29<sup>th</sup> May 2020, at around 10pm, a loggerhead turtle was noted laying eggs on Ramla Bay in Gozo. The turtle came out of the sea at around 10pm and left around 11.30pm.
- This was the first recorded and confirmed nest in Gozo after 70 years.



**TURTLE NEST SITE**



# ***TURTLE NEST IN ENCLOSURE***

- Signs telling people to stay away from nest
- Enclosure surrounded with sand bags to stop sea water from strong waves and/or surface runoff from heavy rainfall
- Mesh that goes underground to protect from ghost crabs burrowing in
- A marked nest has much better chances of successful incubation




 **Tiddisturbax!**  
**BEIJA TAL-FKIEREN!**

For å sikre at nestene er trygge og sikre, er det viktig at vi holder oss unna dem. Dette betyr at vi ikke skal gå inn på området eller gjøre noen lyd som kan forstyrre kvinnen eller ungene. Hvis du oppdager et nest, skal du varsle de ansvarlige på stedet. Husk å være stille og å se ut som om du ikke har sett noe.

- Hold deg unna nestene.
- Ikke gå inn på området.
- Ikke gjøre noen lyd.
- Ikke fotografere eller filme kvinnen eller ungene.
- Ikke ta bilder eller videoer.
- Ikke ta prøver eller samle på noe.
- Ikke gjøre noen ting som kan forstyrre kvinnen eller ungene.

Ønsker du å vite mer om sjøskilpaddene og nestene, kan du kontakte de ansvarlige på stedet.



 **Do Not Disturb!**  
**SEA TURTLE NEST**

For to ensure the safety of the nest, it is important that we do not disturb the female or the eggs. This means that we should not enter the area or make any noise that could disturb the female or the eggs. If you discover a nest, please report it to the responsible person on site. Remember to be quiet and act as if you have not seen anything.

- Stay away from the nest.
- Do not enter the area.
- Do not make any noise.
- Do not take photos or videos.
- Do not collect any samples or take anything.
- Do not do anything that could disturb the female or the eggs.

If you want to know more about sea turtles and nests, you can contact the responsible person on site.



## RESEARCH QUESTIONS

- What are the ideal environmental conditions for a successful turtle nest?
- Does climate change affect turtle hatchlings?



# METHODOLOGY



Surface and ground sand temperature from and around nest site were recorded. Air temperature, humidity and barometric pressure were also measured and the GLOBE Observer App and Observation Cloud chart to measure the cloud cover following the steps of the GLOBE Protocols.



Data was collected from turtle nest site 3 times daily (morning, afternoon, evening) throughout the whole incubation period between June and August.

## **APPARATUS USED**

2 temperature probes (dug in sand at a depth of 20cm and 80cm respectively)

Data logger to read sand temperature

Data logger to measure air temperature, humidity and air pressure

GLOBE Observer App to record cloud type and cover

InfraRed Thermometer to measure surface sand temperature



## **DATA ANALYSIS**

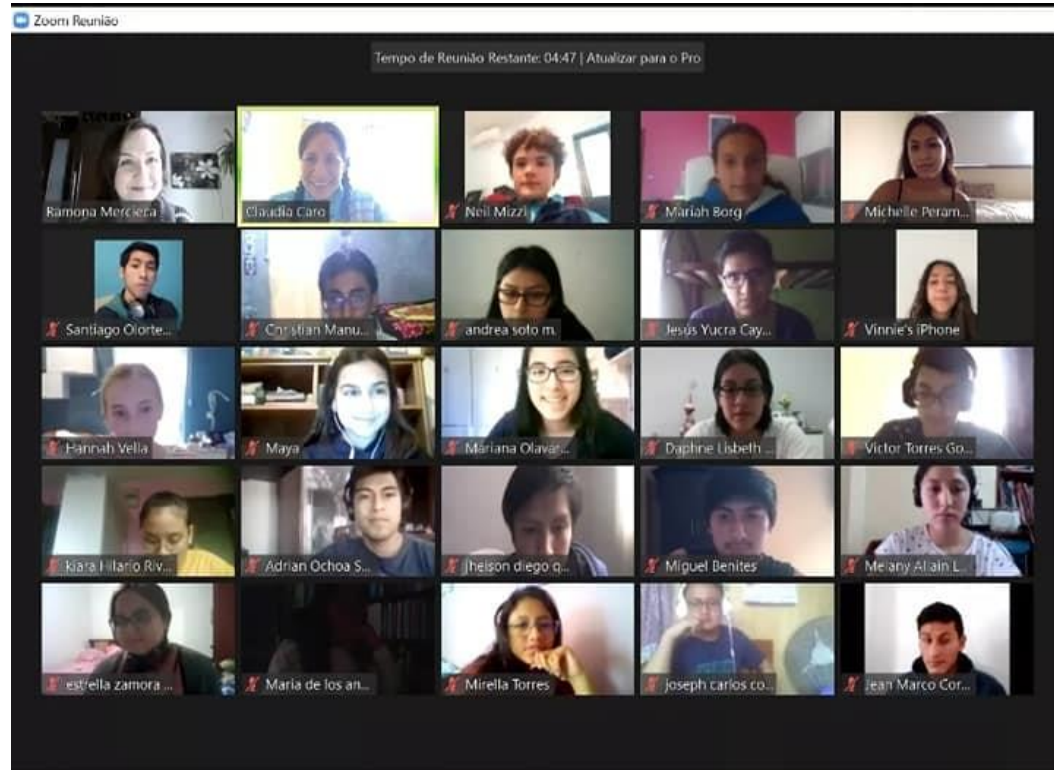
All data collected was analysed during online meetings between October 2020 and January 2021. The following was concluded....

- During incubation period sand temperature never exceeded 30° Celsius so most hatchlings were males.
- This is because research shows that if a turtle's eggs incubate below 28° Celsius, the turtle hatchlings will be male. If the eggs incubate above 31° Celsius, however, the hatchlings will be female. Temperatures that fluctuate between the two extremes will produce a mix of male and female baby turtles.
- 84 hatched out of 105 (but 2 of them were dead)

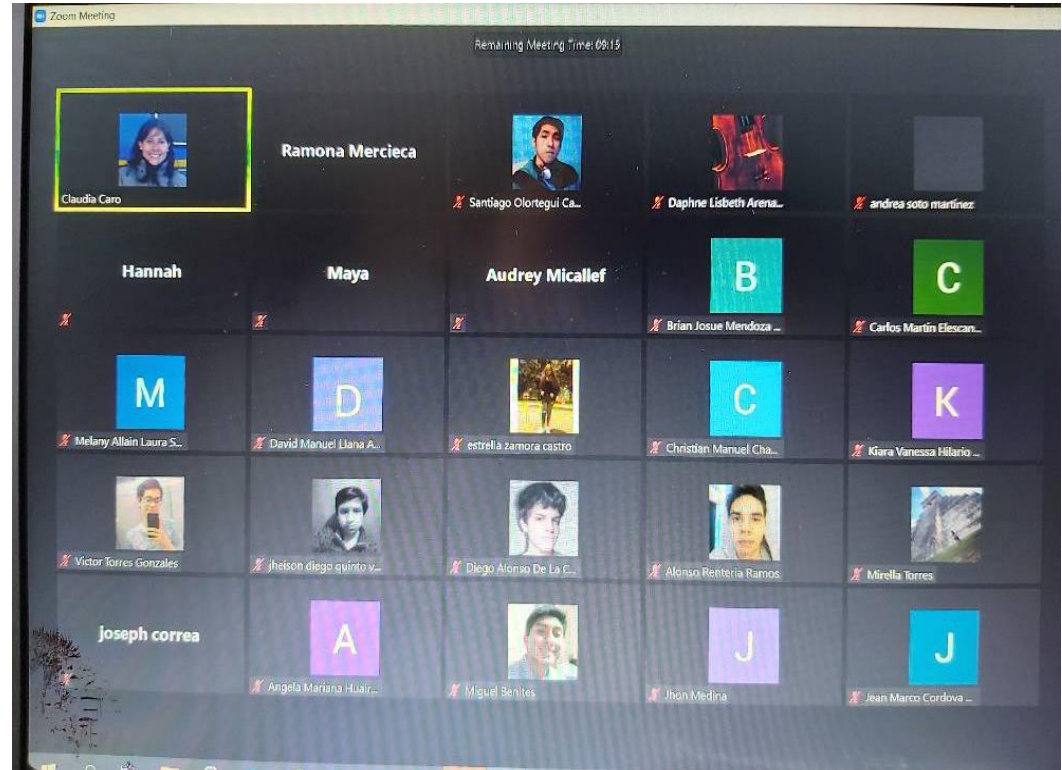
# INTERNATIONAL COLLABORATION WITH PERU

The students participated in 2 online meetings with students from the University of Lima. They spoke about their experience and shared the results of their investigation on marine litter and data collected from turtle nest sites in Ramla Bay with 1st year General Ecology students attending [Universidad Nacional Agraria La Molina](#) in Lima, Peru. The students shared their findings and together they discussed the ideal conditions for a turtle nest to be successful.

# SCREENSHOTS FROM ONLINE MEETINGS



15<sup>th</sup> January 2021



26<sup>th</sup> February 2021

# AGENTS OF CHANGE

During site visits the students noticed, on many occasions, that the beach was full of litter especially cigarette butts and microplastics. To back up the educational process and support wildlife, the students took the initiative and went a step further. They came up with the idea of organising a beach clean-up event. Volunteers from Nature Trust FEE Malta and the general public joined the event. Besides lots of cigarette butts, bottle caps, straws and cotton bud sticks, thousands of small pieces of plastic including nurdles were collected from the sand through sieving. The students wanted to set the example and be part of the change and take action to get closer to reach the Sustainable Development Goals mainly SDG 14 (Life below water) and SDG 11 (Sustainable cities and communities).





Thank You

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