

LEARN ABOUT Flatback turtles



Flatback Turtles are carnivorous and endemic to Australia. Their only known nesting sites are on the Australian coast including islands. The shell (carapace) of an adult Flatback can be up to 90cm across.

Q1. Why might a 2 degrees Celsius rise in global temperature affect the Flatback turtle?

- flatback turtles prefer cold ocean temperatures
- ▲ the sex of hatchlings is dependent on sand temperatures of nesting sites
- flatback turtles may suffer sunburn.

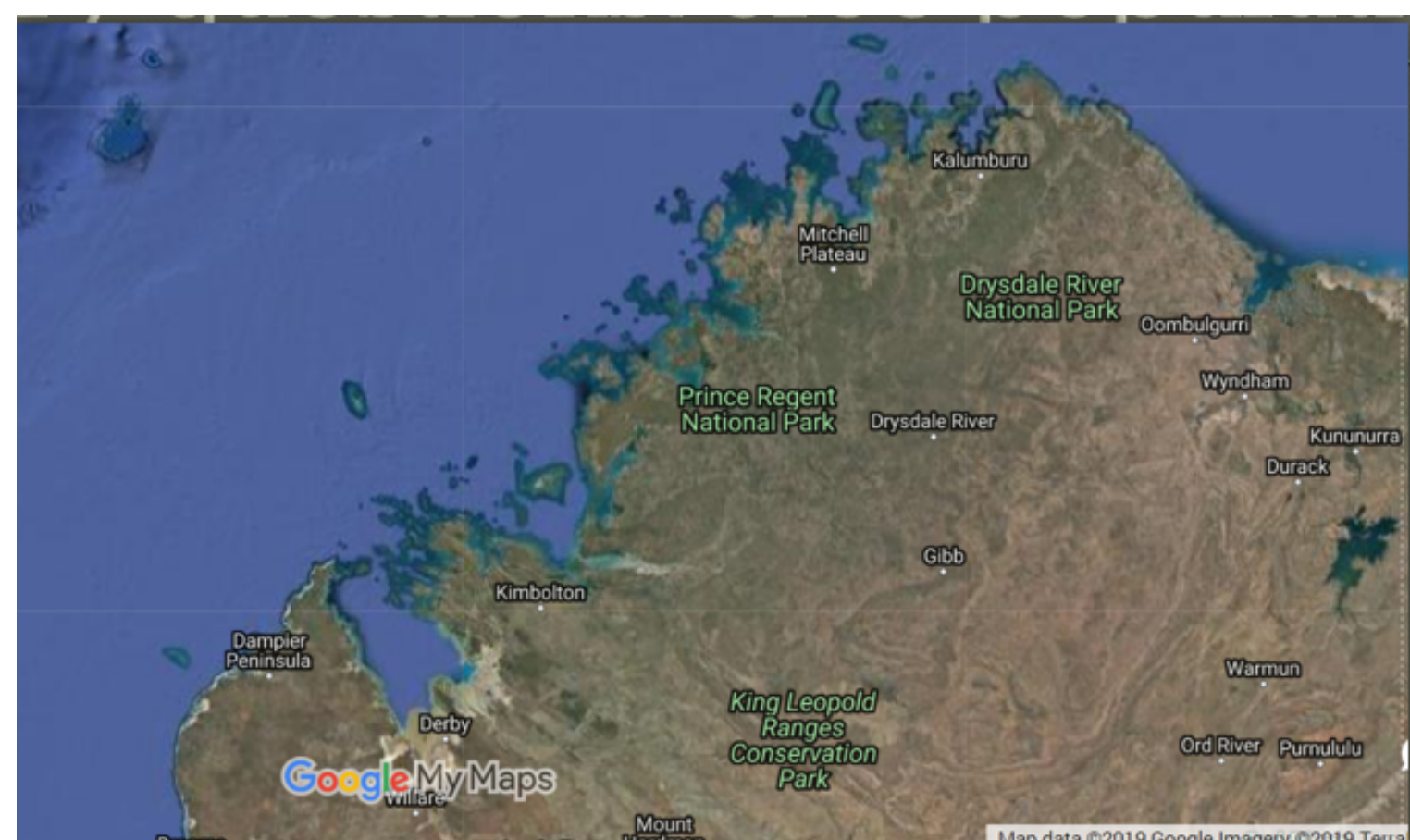
When surveying the turtle population, scientists record the position of a nesting site using latitude and longitude.

Here is the GPS data for one nesting site: latitude [-21.45675](#), longitude [114.9886](#).

Use a smartphone, put both points, separated by a comma, into a Google search engine and it will locate the point on Google maps. Zoom out. Where is it?

Q2. The nesting site is located at:

- Barrow Island, WA
- ▲ Thevenard Island, WA
- Mornington, Qld



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The sand temperature of a Flatback turtle nesting site of approximately 28-29 degrees Celsius is considered ideal ('pivotal' temperature).

Q3. At the 'pivotal' temperature:

- 50% of hatchlings will be male, 50% female
- ▲ 100% of hatchlings will be male, 0% female
- 0% of hatchlings will be male, 100% female



For turtle hatchlings to survive, a temperature range between 25 and 33 degrees Celsius as the eggs incubate, is best.

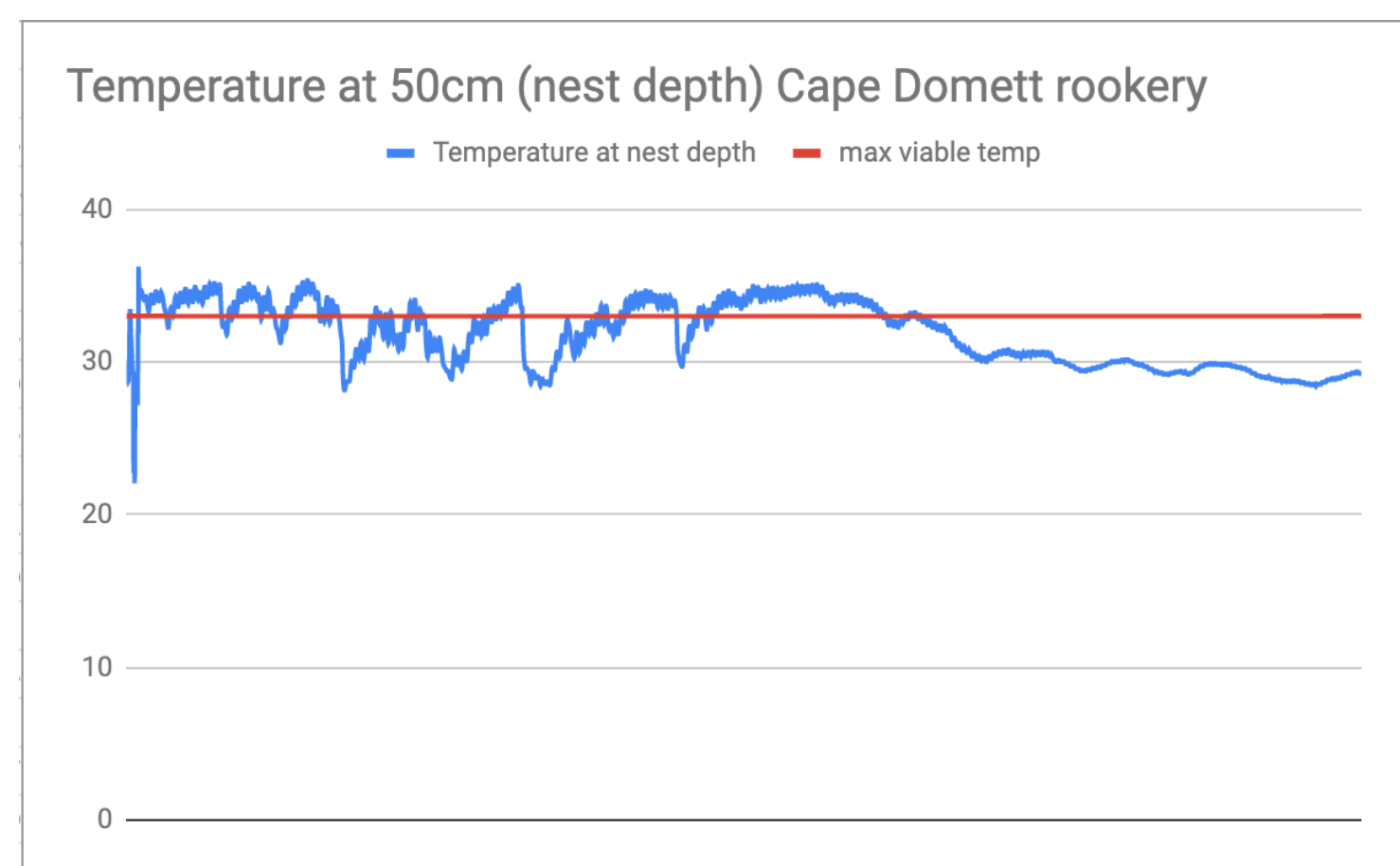
A range 25.0 to 27.7 degrees Celsius will result in all hatchlings being male.

A range 31.1 to 33.0 degrees Celsius will result in all hatchlings being female.

Temperatures above 33.0 degrees Celsius may result in mortality (not surviving).

Q4. What might you expect from this nest site?

- a higher % of males and a high possibility of mortality
- ▲ 100% survival of hatchlings
- a higher % of females and a high possibility of mortality



If you like these activities ask your teacher to view the lesson.

Visit the DT-Hub www.dthub.edu.au

Search for 'turtles'

Answers, Q1, Q2, Q3, Q4