



# Understanding the ecology of Ningaloo's iconic turtles

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Ningaloo Outlook – A partnership between BHP and CSIRO

WESTERN COASTAL/OCEAN & ATMOSPHERE  
[www.csiro.au](http://www.csiro.au)



*Ningaloo Outlook is a BHP-CSIRO Industry-Science Marine Research Partnership investing A\$5.4 million over five years to gather new knowledge on the Ningaloo reef and its important ecological values*

# Targeted research

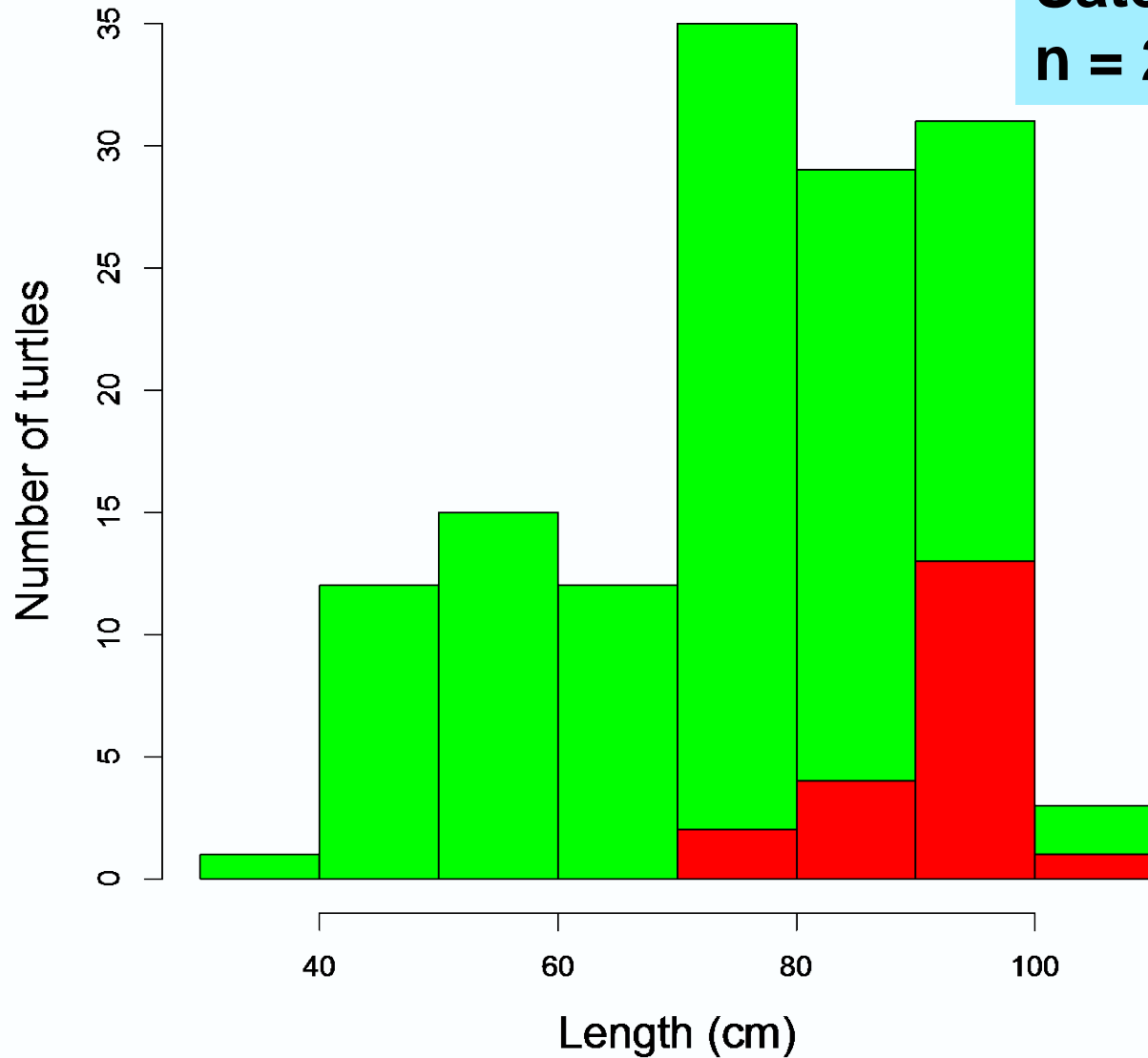
How many are there?

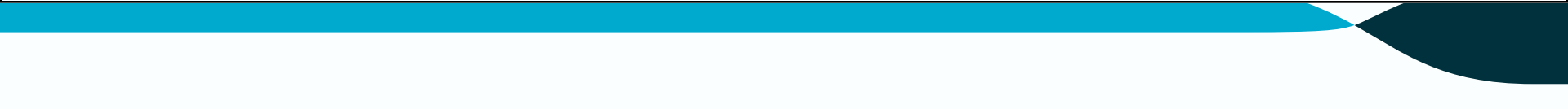
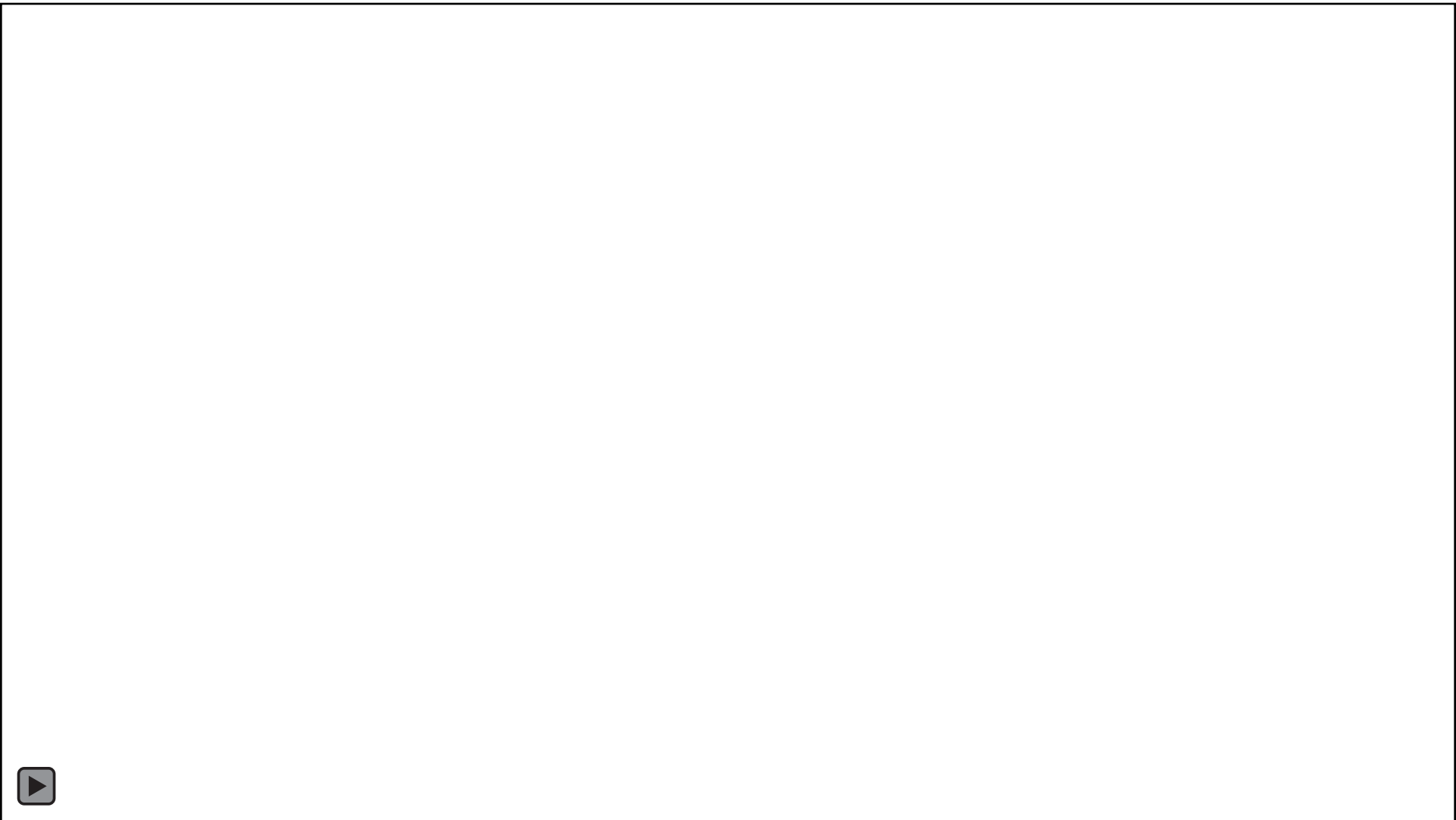
Where do they spend their time?

What food resources do they rely on?



# Satellite tags





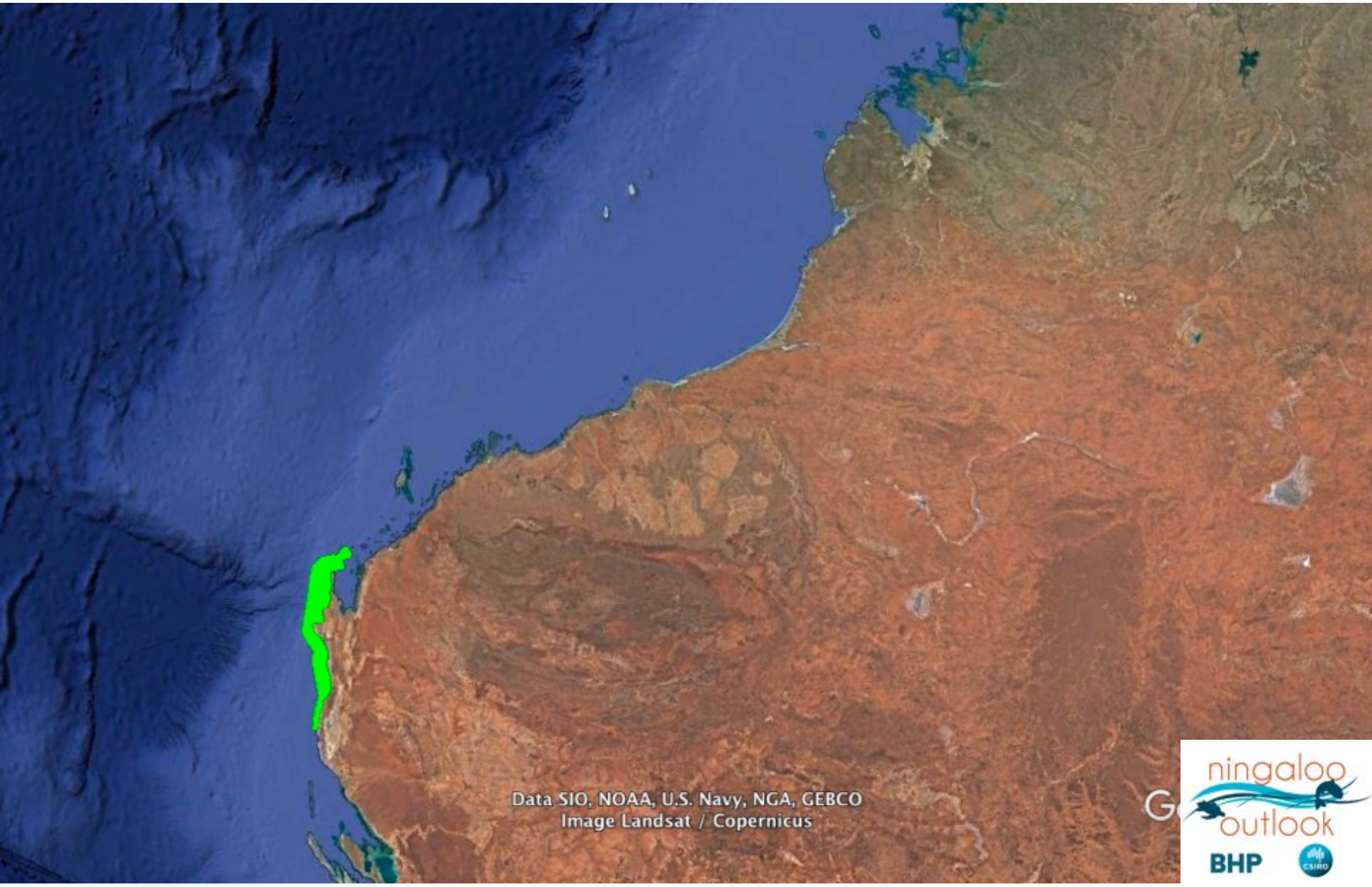
# seaturtle.org



## [www.seaturtle.org/tracking](http://www.seaturtle.org/tracking)



# Ningaloo



Data SIO, NOAA, U.S. Navy, NGA, GEBCO  
Image Landsat / Copernicus

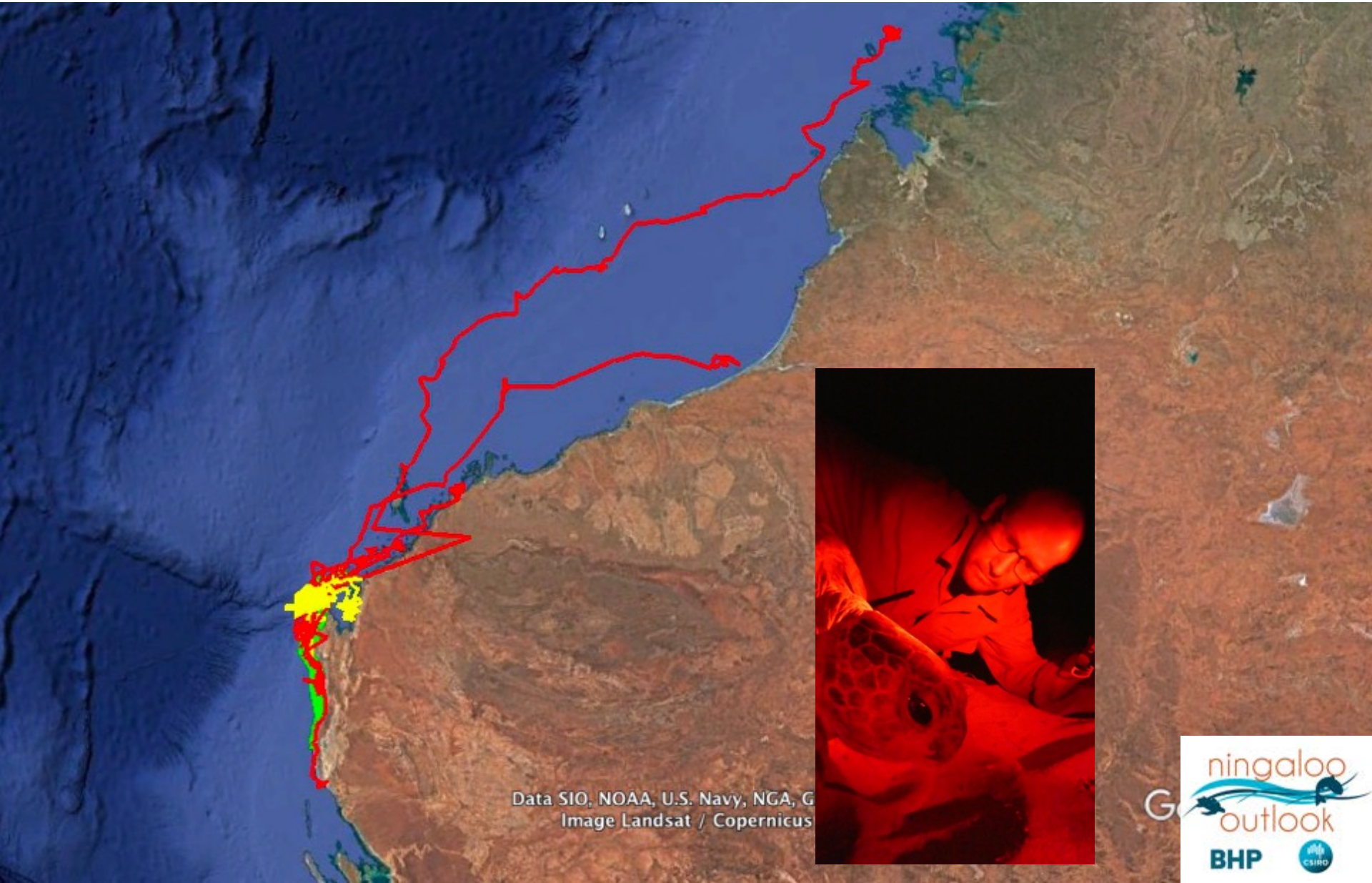


# Outside nesting season



Data SIO  
Ima

# Nesting females

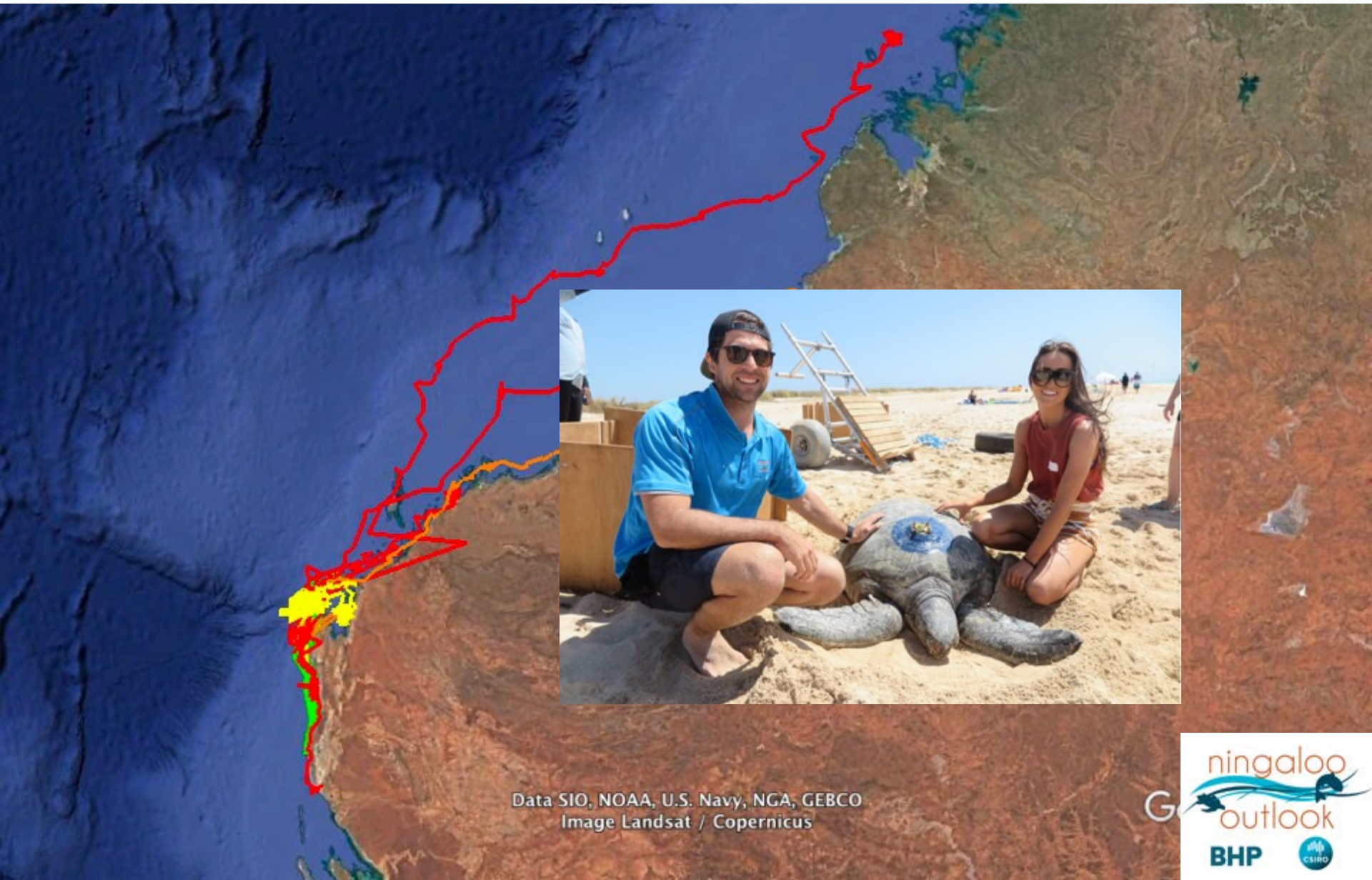


Data SIO, NOAA, U.S. Navy, NGA, G  
Image Landsat / Copernicus





# Wanda



Data SIO, NOAA, U.S. Navy, NGA, GEBCO  
Image Landsat / Copernicus

# Wanda: 16 September 2017



Ultrasound machine interface showing a scan of the turtle's carapace. The screen displays a grayscale image of the shell's internal structure.

General      Probe: C3.5-80R60-R16A      10:19:52  
NO.1      FPS:      2017/09/17

Depth:	0~210 mm
Gain:	G 029
D.R:	DR 66dB
Frame:	FR3
Freq:	5.0MHz
Zoom:	1.0

Measuring Result:

image name.

Frame Corr.  
Accessory  
File Mgmt.  
中文

General    Obstetrics    Gynecology    Cardiology    Organ    Urology  
SetDefault    Img. Save    Img. Mgmt.    New Case    Body Mark    Report

# Wanda: 17-23 September



Data SIO, NOAA, U.S. Navy, NGA, GEBCO

Image Landsat / Copernicus

# Wanda: 24 September – 2 October



Data SIO, NOAA, U.S. Navy, NGA, GEBCO

Image Landsat / Copernicus

# Wanda: 2 October – 16 December



Data SIO, NOAA, U.S. Navy, NGA, GEBCO

Image Landsat / Copernicus



# Wanda: 17 December -



Data SIO, NOAA, U.S. Navy, NGA, GEBCO

Image Landsat / Copernicus

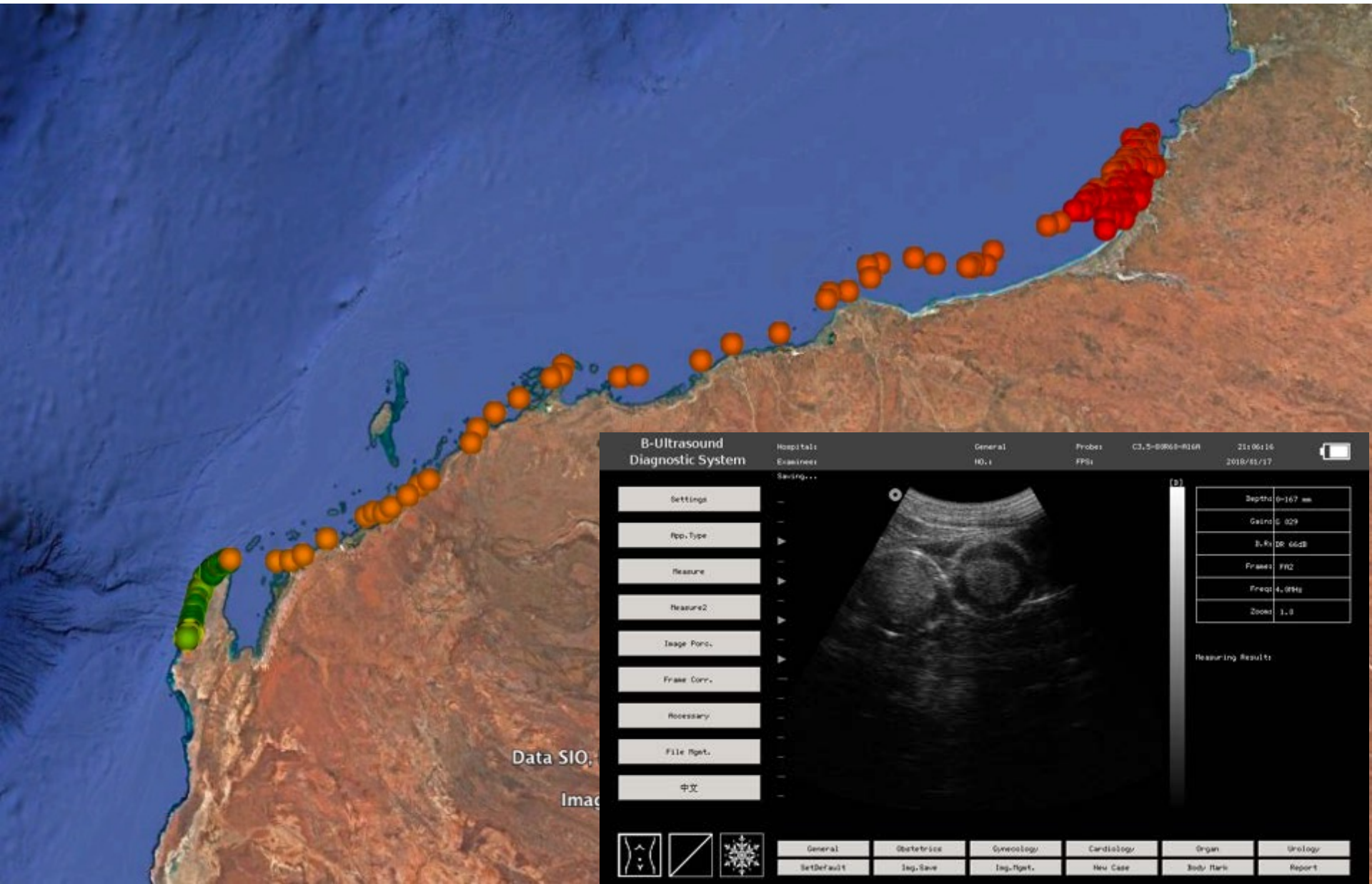
# Wanda: 17 December – 13 January



Data SIO, NOAA, U.S. Navy, NGA, GEBCO

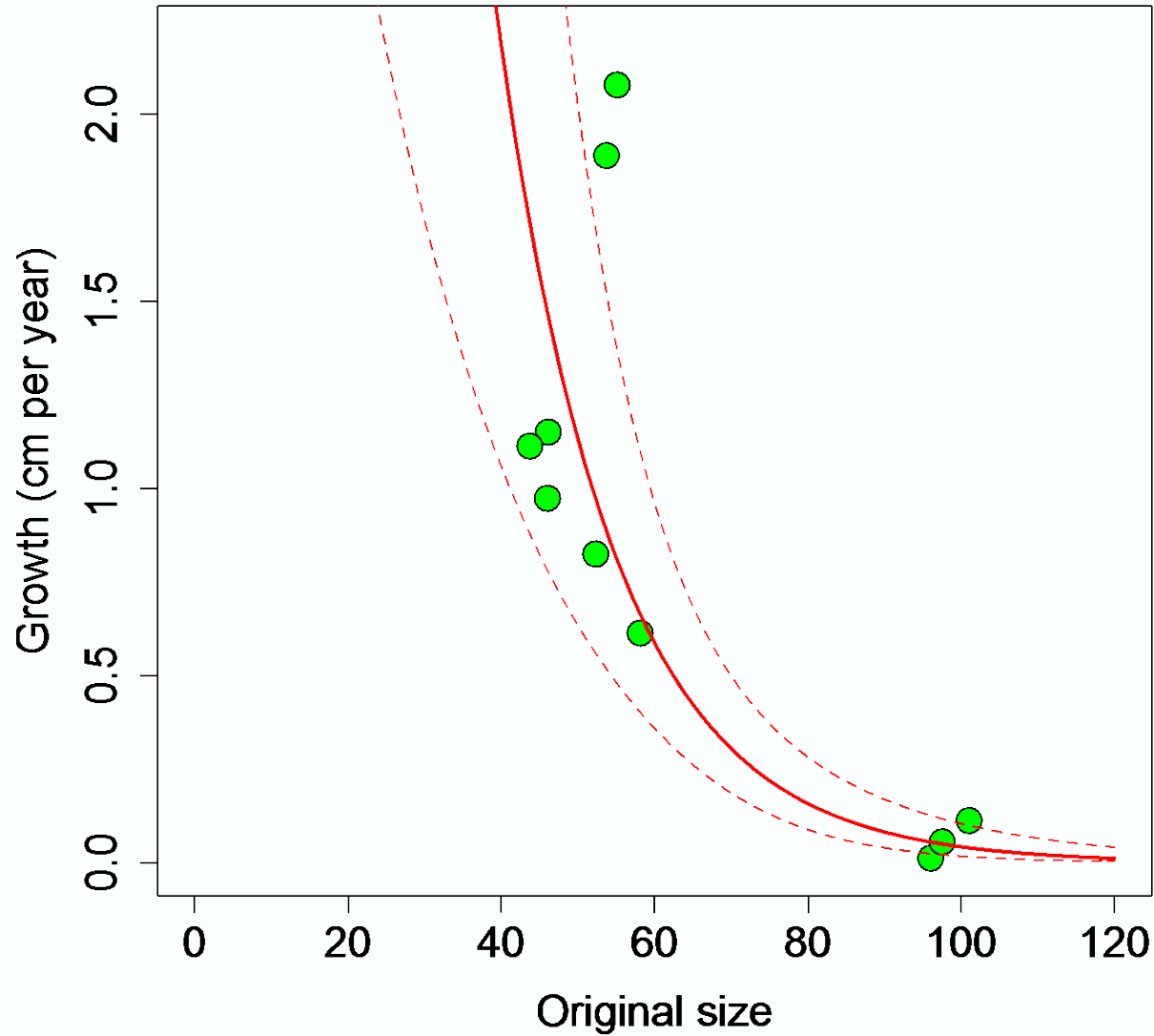
Image Landsat / Copernicus

# Wanda: 14 January – 20 February





# How old are they?



# Acknowledgements

- BHP-CSIRO Ningaloo Outlook Marine Research Partnership
- Susie Bedford & Exmouth District High School
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- Peter Barnes, Keely Markovina, Scott Whiting and many DBCA staff
- Zoe Starkey

