

Aruba Update: Monitoring, Research and Telemetry

Sietske van der Wal, MSc

WIDECAST Annual Meeting

March 2018



Presentation overview

- Introduction
- Monitoring
- Research
 - DNA
 - Nest temperatures
 - Telemetry



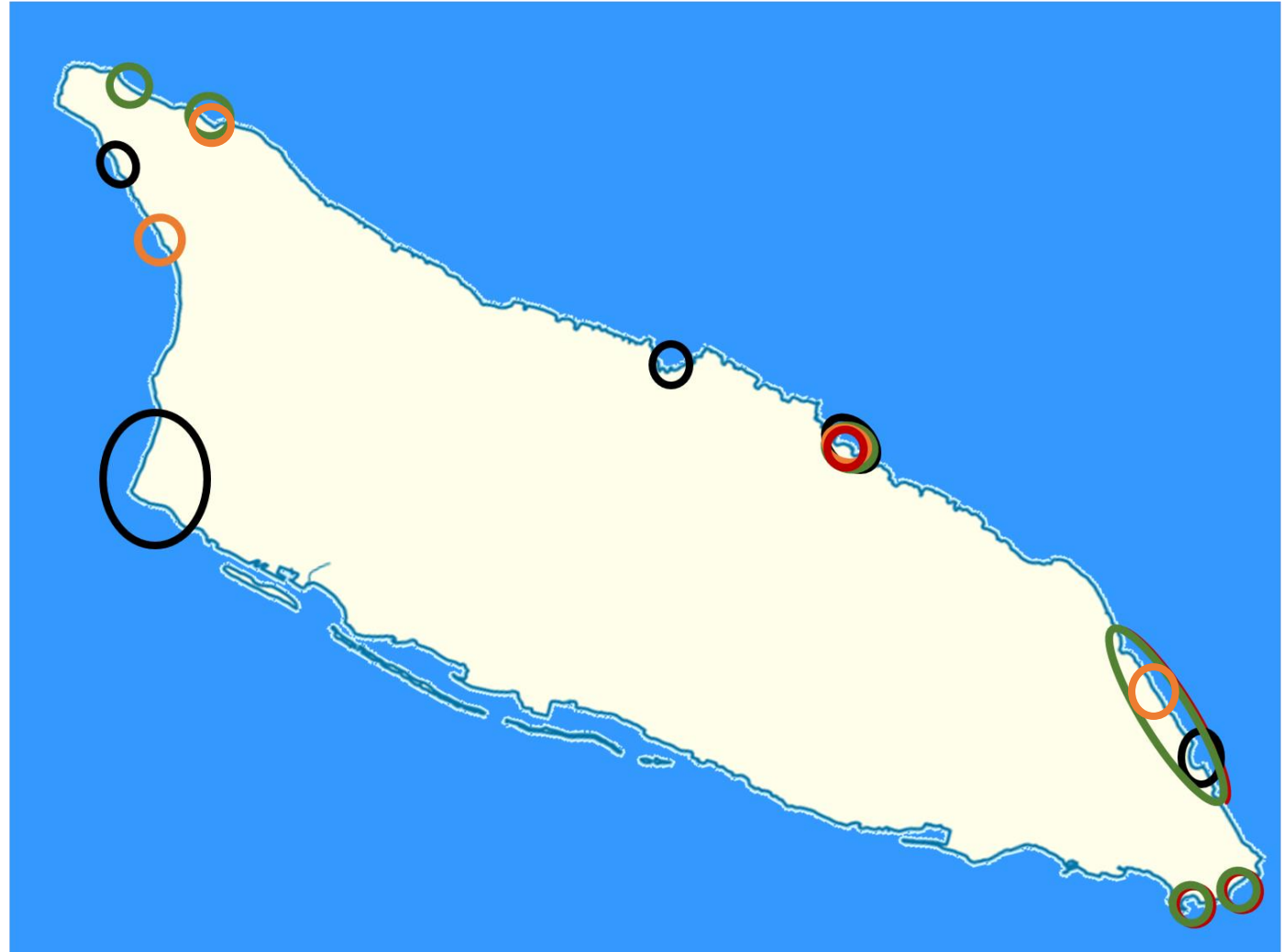
Introduction: Aruba

- Small nesting population
 - Individual turtles
- Biggest threat: Habitat loss
 - Development
 - Light
- Barricades

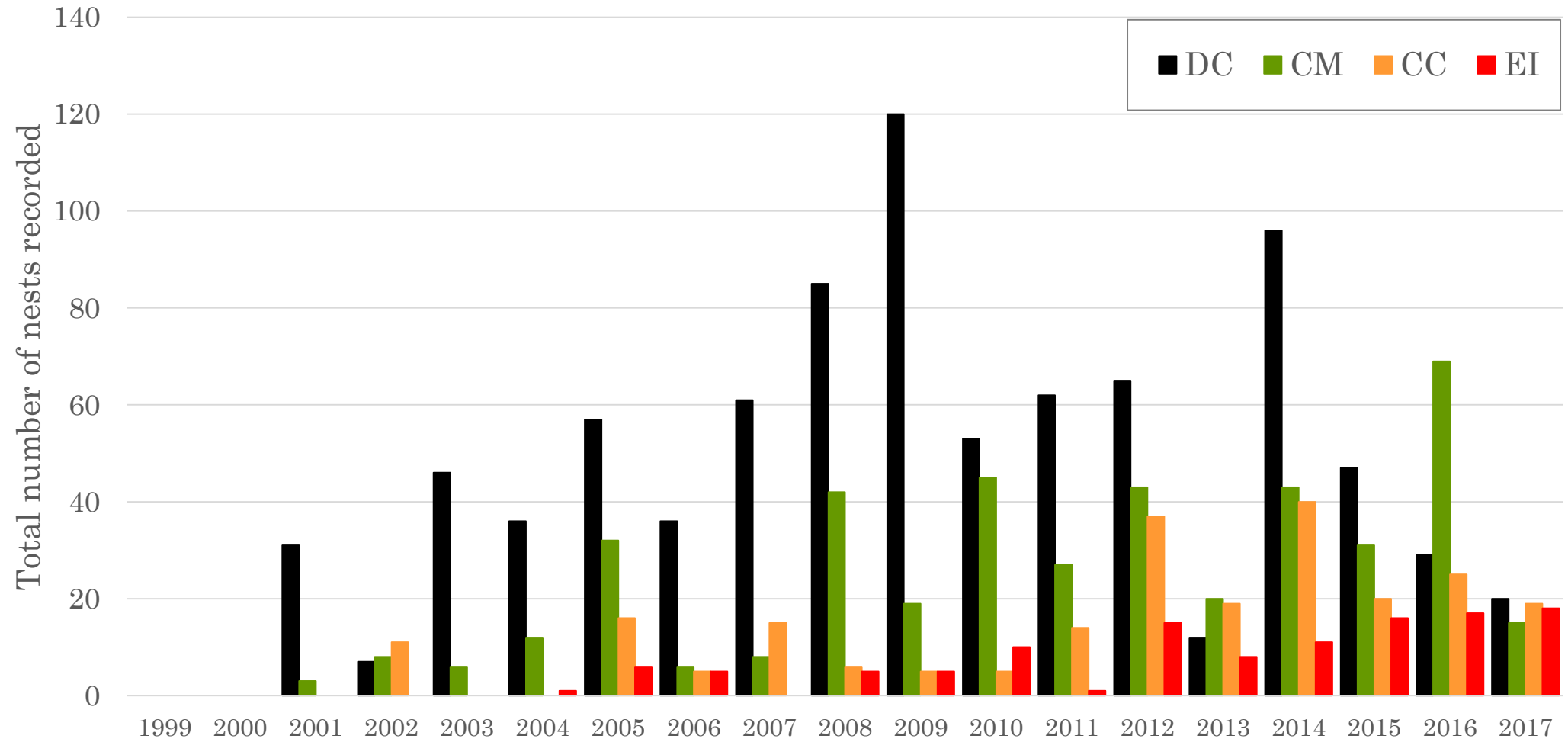


Monitoring: Four sea turtle species nest on Aruba

- Leatherback **O**
 - *Dermochelys coriacea*
- Green Turtle **O**
 - *Chelonia mydas*
- Loggerhead **O**
 - *Caretta caretta*
- Hawksbill **O**
 - *Eretmochelys imbricata*



Number of nests

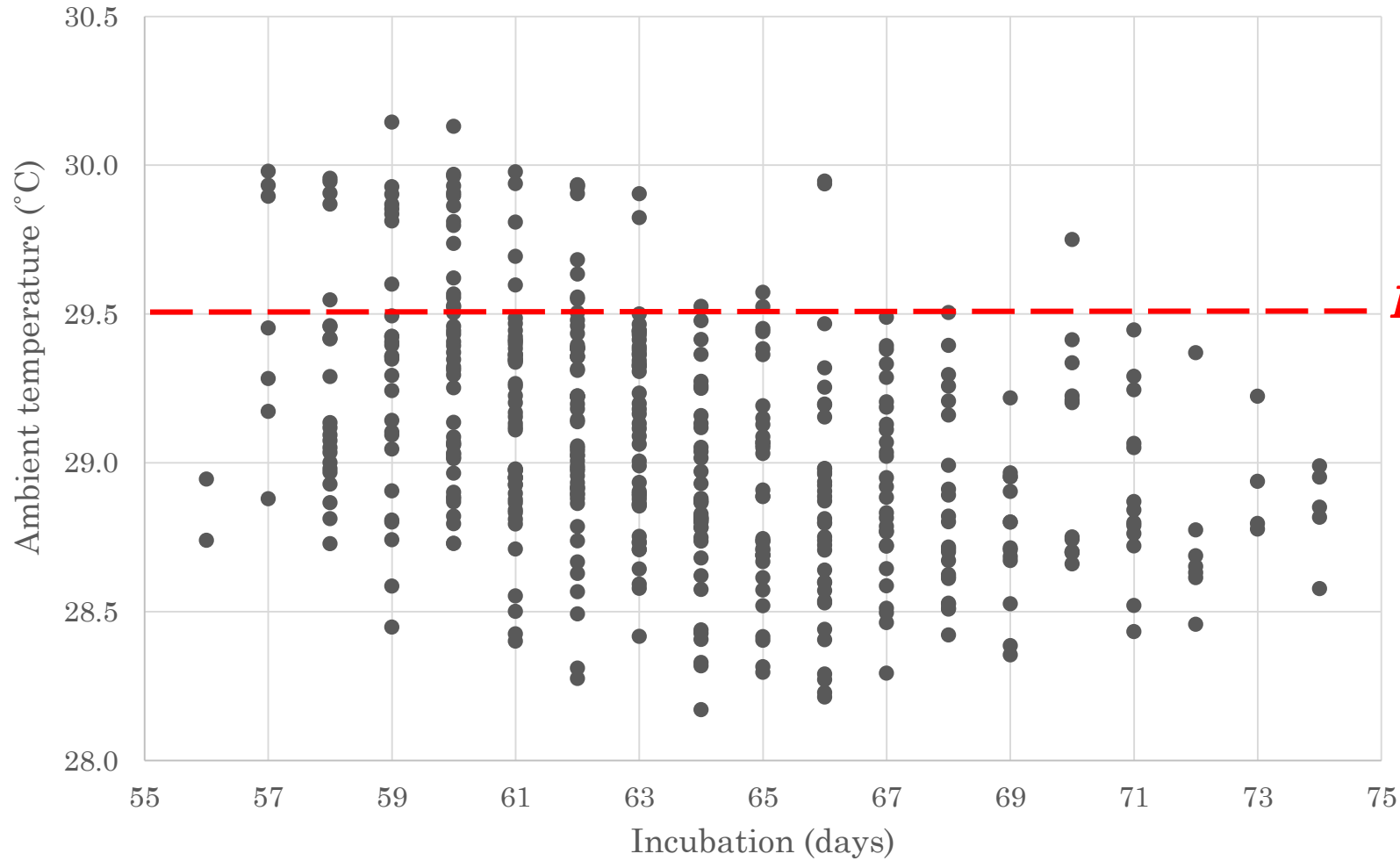


Research: DNA

- mtDNA Leatherbacks ($n=45$)
 - Nesting population Aruba related to the Southern Caribbean (Trinidad/Guyana) stock
 - All but one sample (Northern Caribbean, St. Croix)
- (mt)DNA Hawksbill & Green turtles
 - Currently analyzed in the Netherlands

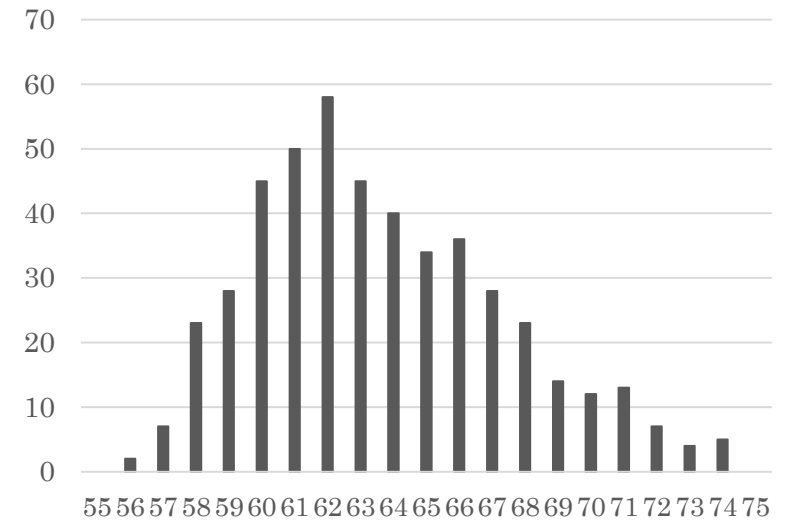


Research: Nest temperatures



- Leatherback
- $n=474$

Pivotal temperature

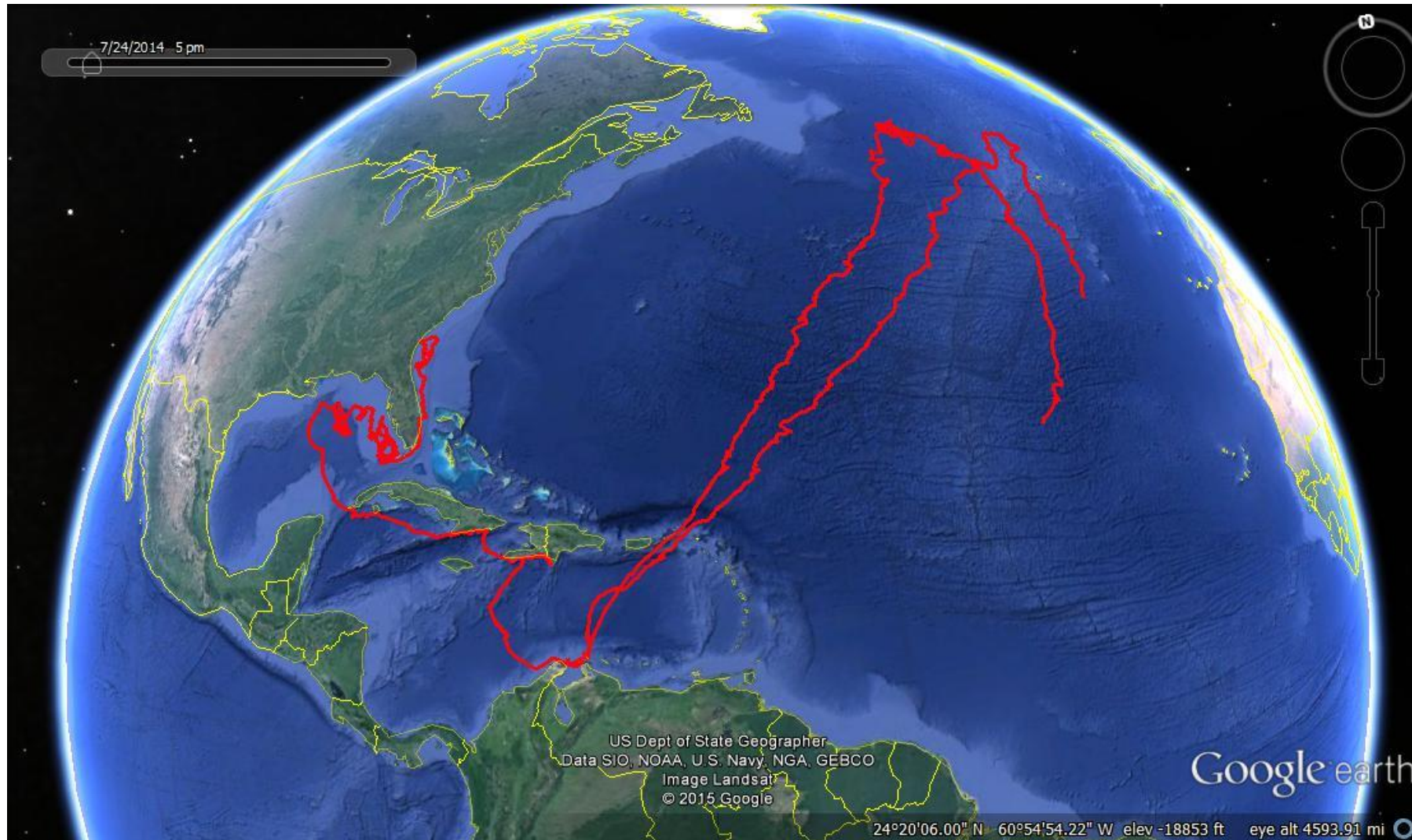


Research: Telemetry

Year	DC	CM	CC	EI
2014	3	3	1	
2015	6	2	1	1
2016	3	2	2	
2017	3			
2018			
Total	15	7	4	1



Leatherbacks



Case: Green Turtle

- 2014
 - Tagged on 7th nest
 - 9 nests total
- 2016
 - 7 nests total
- 2012
 - 9 CM nests?

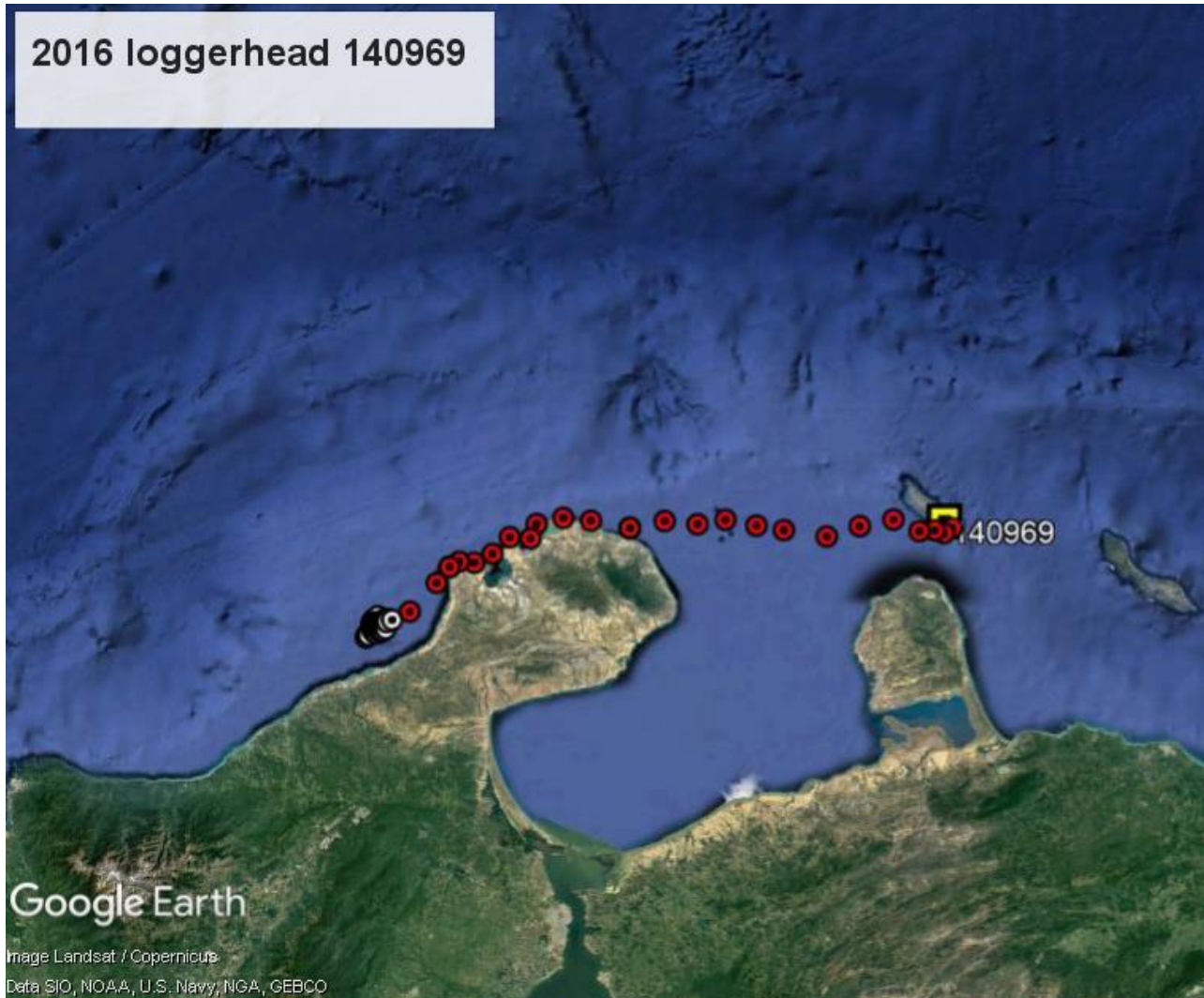


Case: Loggerhead



Case: Loggerhead

2016 loggerhead 140969



2016 loggerhead 140969



Case: Loggerhead

- 2016
 - 6 nests
- 2017
 - 6 nests
- 12 nests in 2 years
 - Lit. 3-4 nest, every 2-3 years
- Overestimating populations?



Thank You

