

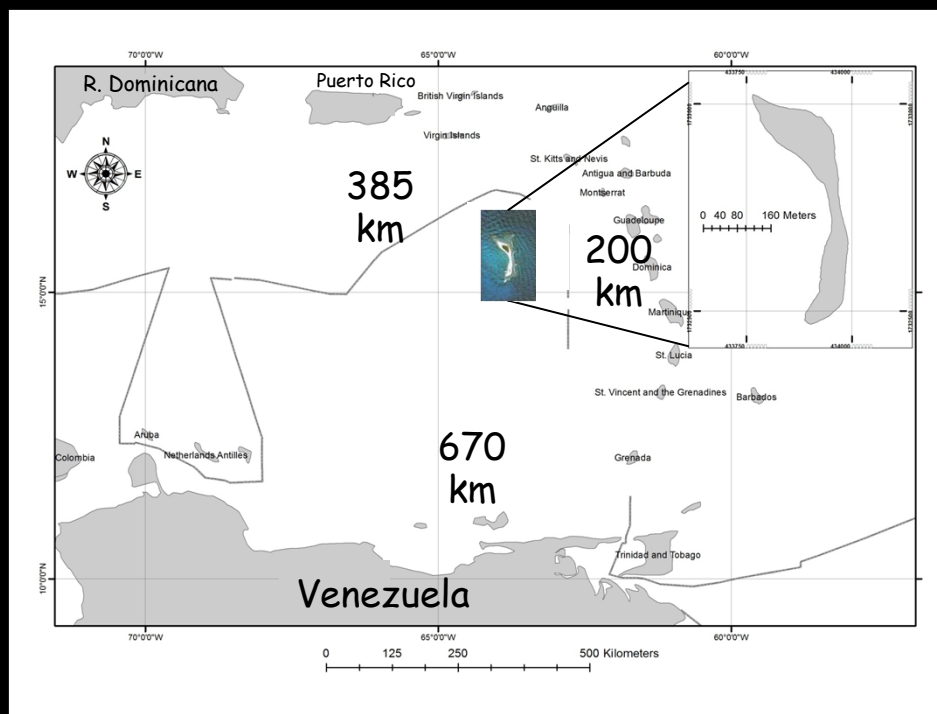
Green Turtles in Isla de Aves, Venezuela WIDECAST Annual Meeting 2013

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PhD Student

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Margarita Lampo



Location



Isla de Aves Wildlife Refuge



Photo: Archivo Armada

Isla de Aves Wildlife Refuge



Photo: Archivo Armada

Green turtle nesting area



Photo: Rodrigo Lazo and Marco García

Isla de Aves Wildlife Refuge



Monitoring and conservation program since 1979



Photo: Rodrigo Lazo

Courtship and mating area



Photo: Marco García and Rodrigo Lazo

Isla de Aves Wildlife Refuge

PhD thesis since 2008

This talk focused on PhD research



Origins/
philopatry
Demography
Epibionts

DEMOGRAPHY

26 years of mark/recapture data



Open Robust design Model
Multistrata
(ORDMM)



ISTS Wednesday
Feb 6
3:50pm
Monitoring and
Biology Session

GENETICS



2008, 2009,
2010, 2012
(n= 350)

Re-examination of
Caribbean
phylogeography,
New location
(Aruba)
Yearly variation



2008, 2009,
2010, 2012
(n= 93)

Mixed
Stock
Analysis

mtDNA 841 bp

EPIBIONTS



n= 150



n= 93

2008, 2009,
2010

Skin epibionts
and
relationship
with population
health

CATCHING MALES....

Step
1



Poster Session
In-Water Biology
#0073

Step
2



Step
3



Step
4



Step
5



SAMPLING



SKIN EPIBIONTS



Etanol 70%

(Frick, 1998)

PHILOPATRY - GENETICS

Blood



Tissue



DMSO 20% Sat NaCl / Etanol 95% / Buffer Lysis

(Dutton, 1998; FitzSimmons, 1999)

PHILOPATRY - SATELLITE TRANSMITTER



(Photo by Gaby Coste)

SATELLITE TRANSMITTER



(Photo by Gaby Coste)

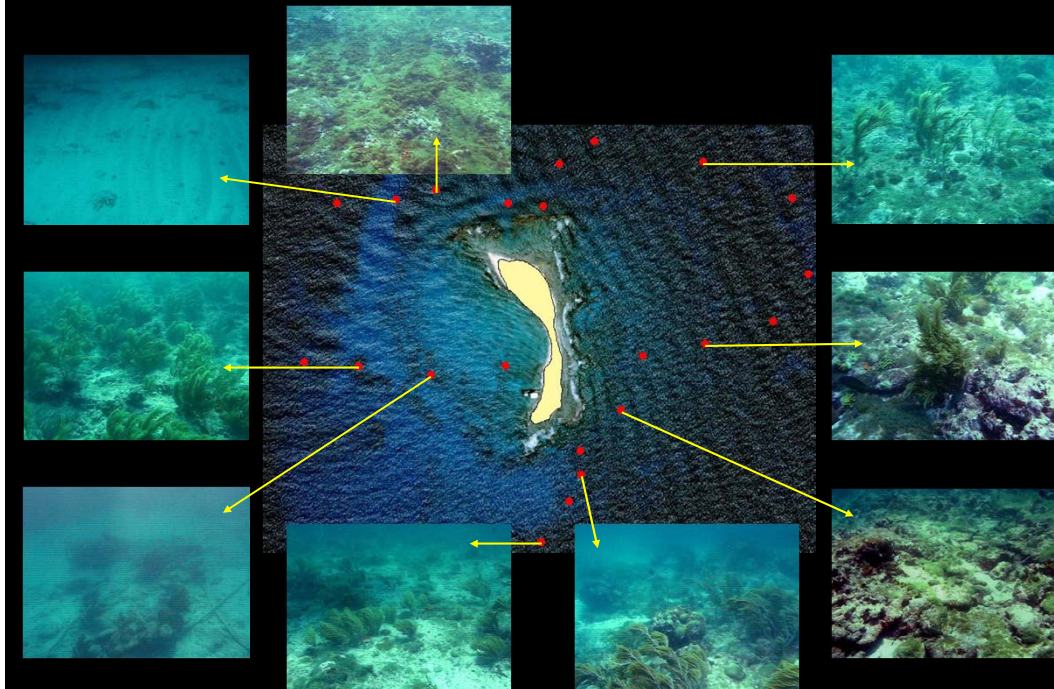
SATELLITE TRANSMITTER



(Photo by Gaby Coste)

OTHER ACTIVITIES...

Sea bottom map



Also..... hawksbill turtles
(*Eretmochelys imbricata*)
Developmental habitat?



Photos: Marco García

ACKNOWLEDGEMENTS



Bill Kendall
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Verónica de los Llanos
Jorge Barbosa
Rodrigo Lazo

Sergio Zambrano
Eneida Fajardo
Gonzalo Medina
Michelle Barany
Larry Bracho
Robert van Dam
Carlos Coste
Gabriela Coste
Rafael Montesinos
Luis Felaco

QUESTIONS ?

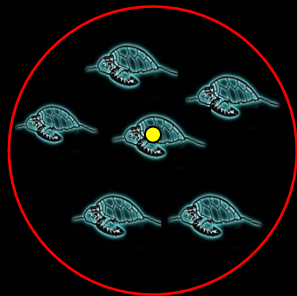


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IVIC

RESULTADOS PRELIMINARES y DISCUSIÓN

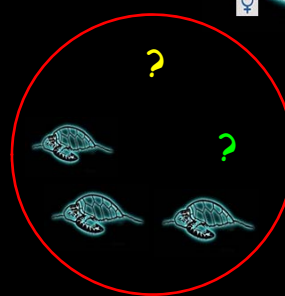
Tasas de Remigración



T_1



$$\gamma'' > \gamma'$$



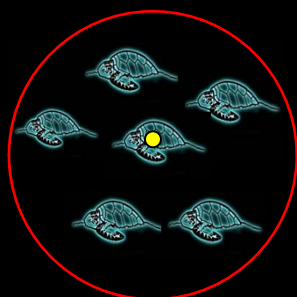
T_2

$$0,88 \text{ (IC 95\%)} > 0,44 \text{ (IC 95\%)}$$

MARKOVIANO

RESULTADOS PRELIMINARES y DISCUSIÓN

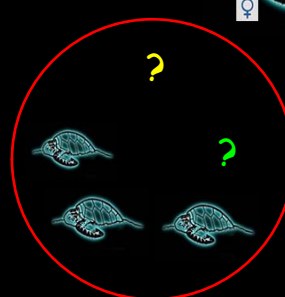
Tasas de Remigración



T_1



$$\gamma'' > \gamma'$$



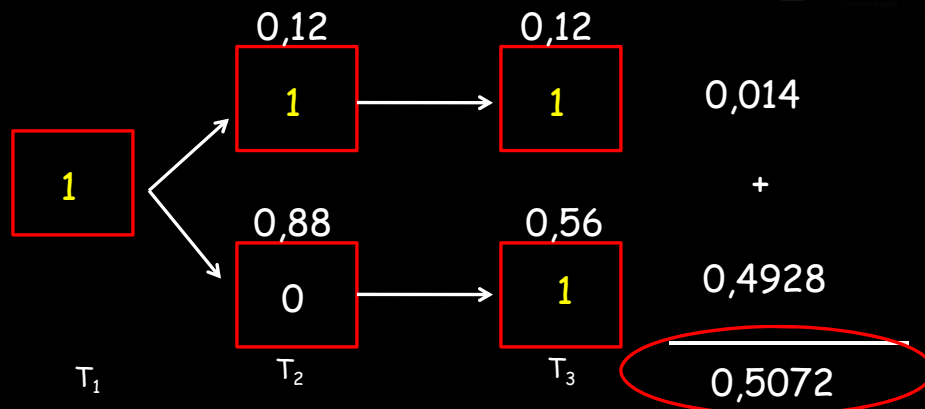
T_2

$$? = (1 - 0,88) = 0,12 \text{ (Probabilidad de ser visto)}$$

$$? = (1 - 0,44) = 0,56 \text{ (Probabilidad de ser visto)}$$

RESULTADOS PRELIMINARES y DISCUSIÓN

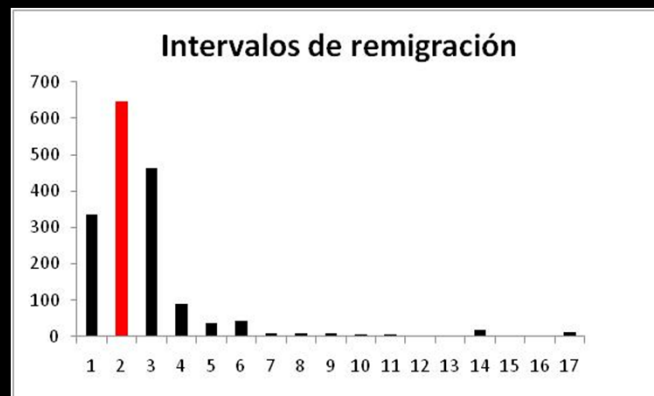
Tasas de Remigración



$$\sqrt{0,5072} = 0,742 \quad \frac{-1}{\ln(0,742)} = 2,94$$

RESULTADOS PRELIMINARES y DISCUSIÓN

Tasas de Remigración



$$\sqrt{0,5072} = 0,742 \quad \frac{-1}{\ln(0,742)} = 2,94$$

RESULTADOS PRELIMINARES y DISCUSIÓN

Supervivencia anual



SUPERVIVENCIA ANUAL = 0,47
(Intervalo: 0,44 - 0,50)

MARCO TEÓRICO: modelos de captura-recaptura

Modelos cerrados: de las historias de capturas a la
función de verosimilitud