Using Seabirds for Marine Spatial Planning in the Caribbean

Darwin Plus Project

2013-2015

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Seabirds not turtles!

- But are similar in many ways....

Similarities

- Spend most of their lives at sea
- Rely on marine environment for food
- Most are migratory species

- Both suffer from human impacts

- Good indicators of the health of marine environment

- Larger conspicuous animals, so “easy” to monitor....

e.g. seabird breeding failure can be caused by overfishing or changes in ocean conditions (sea surface temp)

e.g presence of fibropapillomatosis in turtles indicator of marine pollution

Project summary

- Two year project funded by the UK's Overseas Territories Environmental Fund- Darwin Plus fund.

- Collaborative project of the University of Liverpool, RSPB, Anguilla National Trust, Jost Van Dykes Preservation Society (JVDPS) and National Parks Trust of the Virgin islands (BVI)

- Supported by BVI Government's Department of Conservation & Fisheries and the Anguillan Government's Department of Fisheries & Marine Resources

Aims of project

- Provide comprehensive data on the on-land and at-sea distribution of important seabird populations

- Work with local partners to establish seabird monitoring programmes

- Identify threats facing seabirds in each territory

Data collection

- Comprehensive seabird surveys on cays of Anguilla and BVI

- Attach GPS and satellite data loggers to globally and regionally important seabirds from key species over two breeding seasons to identify feeding areas

Our findings: *on land*

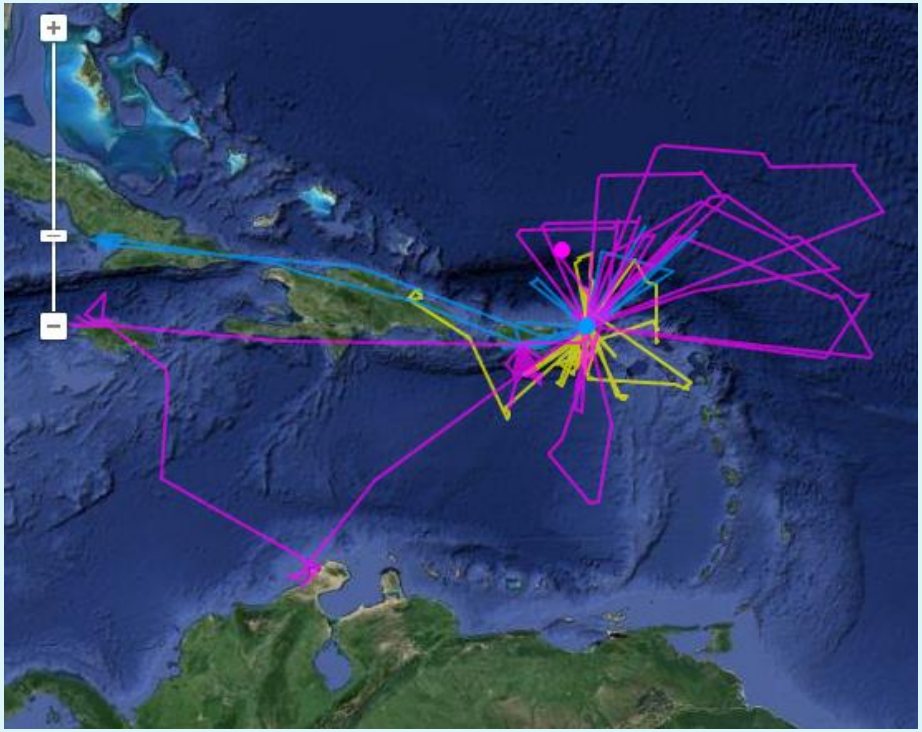
- Dog Island, Anguilla identified as THE MOST important seabird breeding colony in the Lesser Antilles

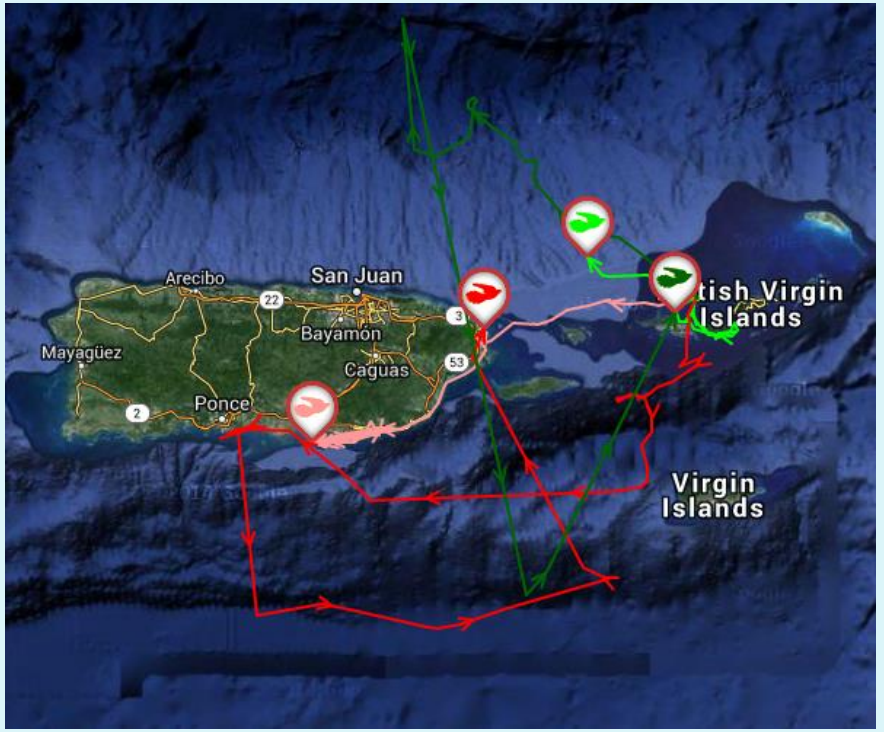
- Supporting 5 globally important and 3 regionally important populations

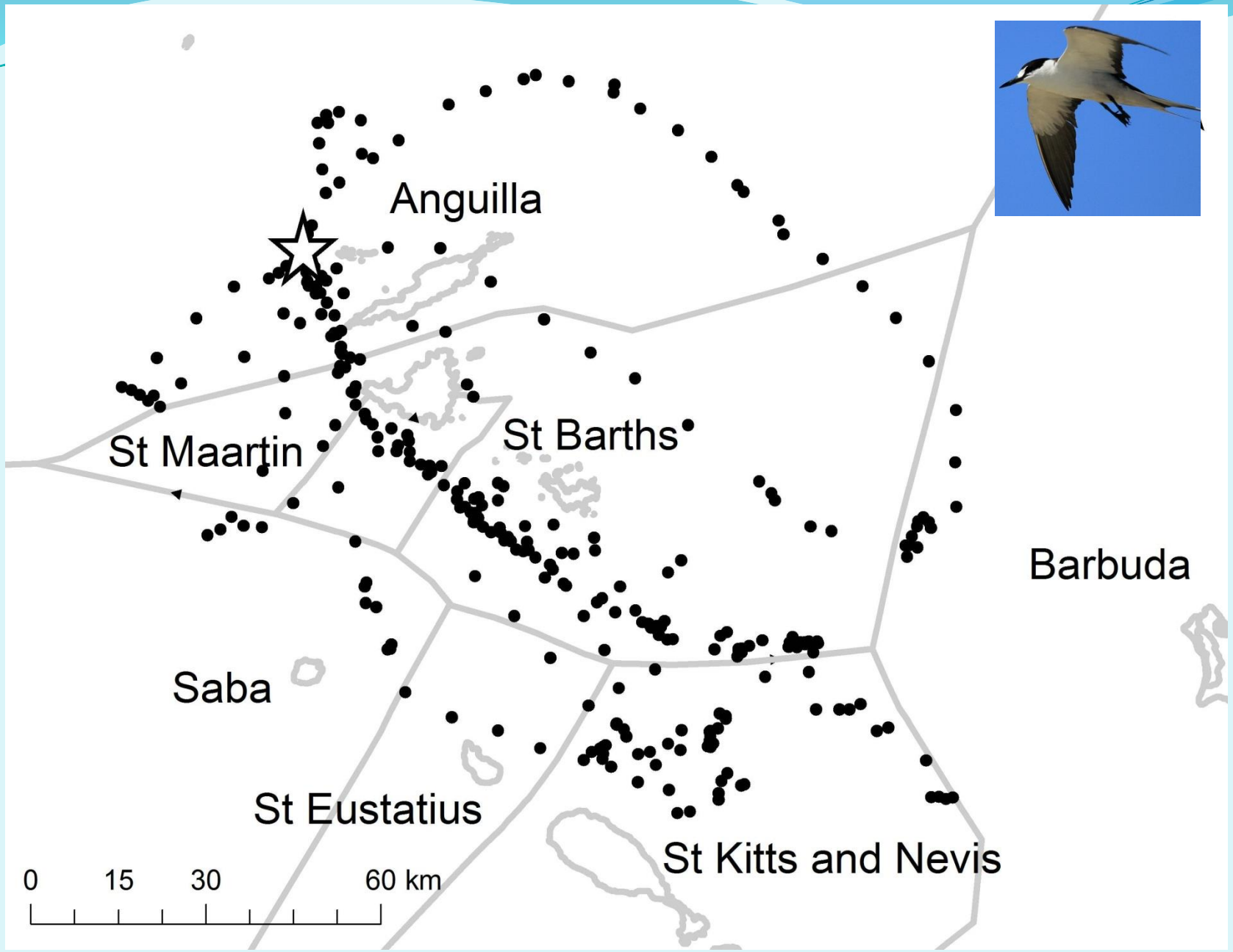
- In BVI one of the 2 previously identified globally important populations has declined dramatically since early 2000's

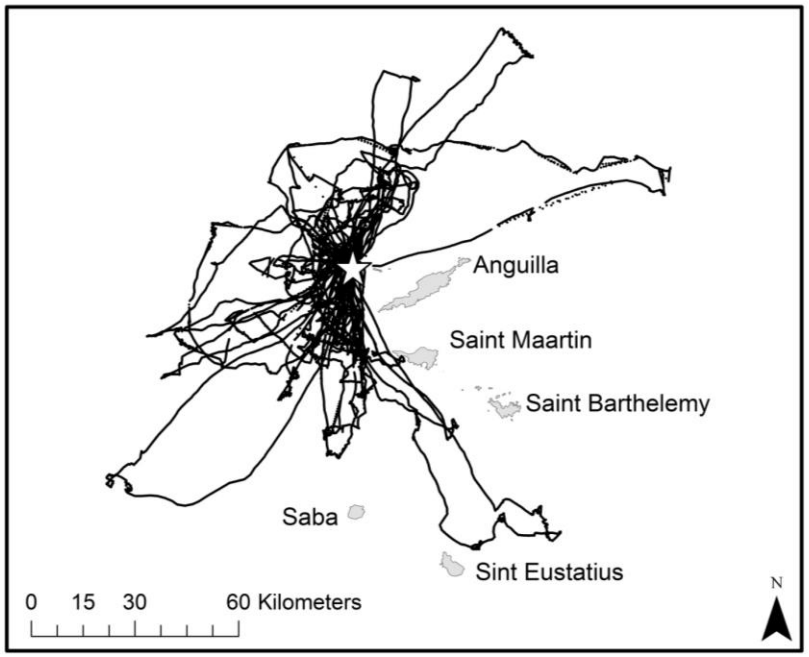
Our findings: *at sea*

- GPS-GSM and satellite loggers attached to frigatebirds breeding in BVI






Anguilla
St Maartin
St Barths
Barbuda
Saba
St Eustatius
St Kitts and Nevis
0
15
30
60 km


Anguilla
Saint Maartin
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0 15 30 60 Kilometers
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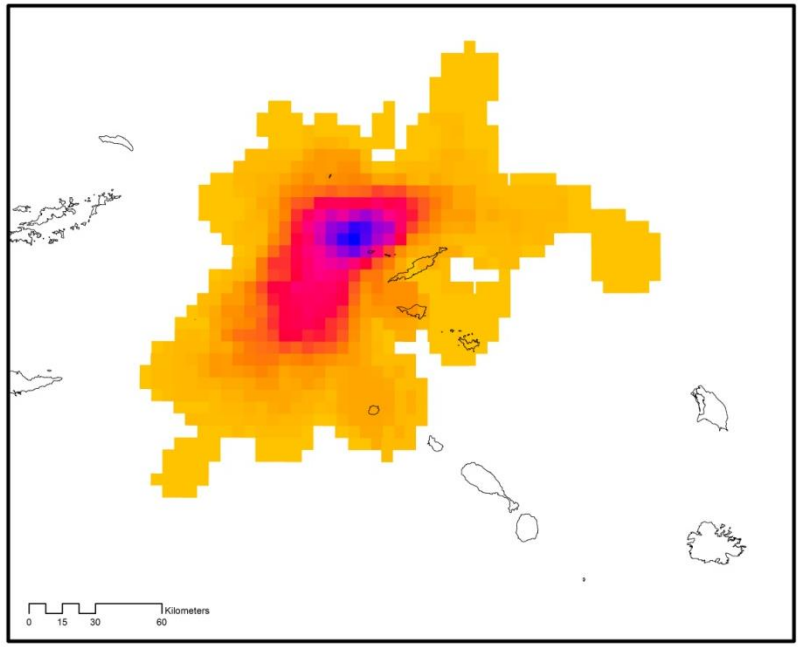

0 15 30 60
Kilometers

Relate foraging areas to....

- Oceanographic features, SST, bathymetry etc.....
- Existing and potential threats

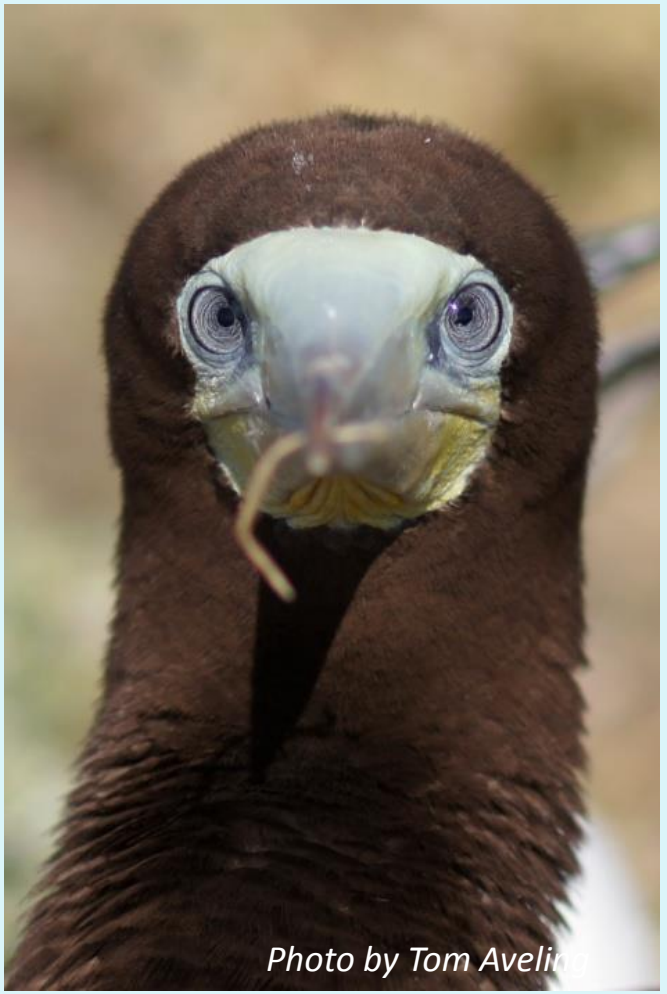
So……

- Identification of important foraging areas can help Government authorities with marine spatial planning,

  e.g. marine protected area designation

- Can identify threats and support/inform mitigation measures

Any questions……



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