

Tracking the Devil:

Conserving Black-capped Petrels on Dominica



Tubenoses Project Copyright © Hadoram Shirihai



Adam C Brown and Machel Sulton
Environmental Protection in the Caribbean

Black-capped Petrel Range



Tubenoses Project Copyright © Hadoram Shirihai



Nesting Range



Foraging Range

Diablotin

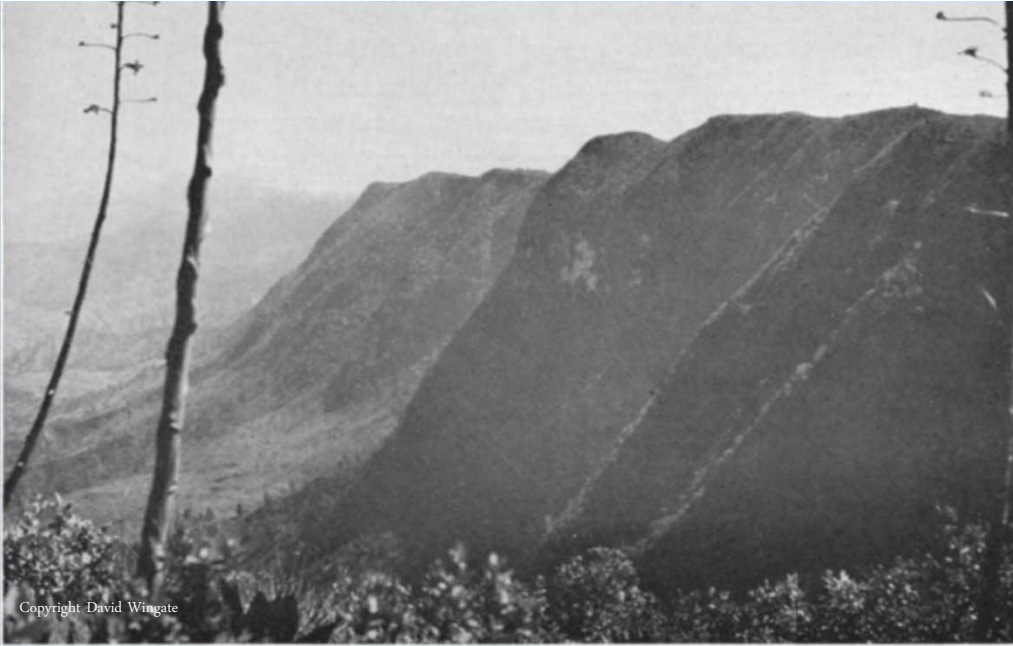


THREATS



Copyright James Coetz





David Wingate's Expeditions



January 2012

Conservation Action Plan *for the* Black-capped Petrel

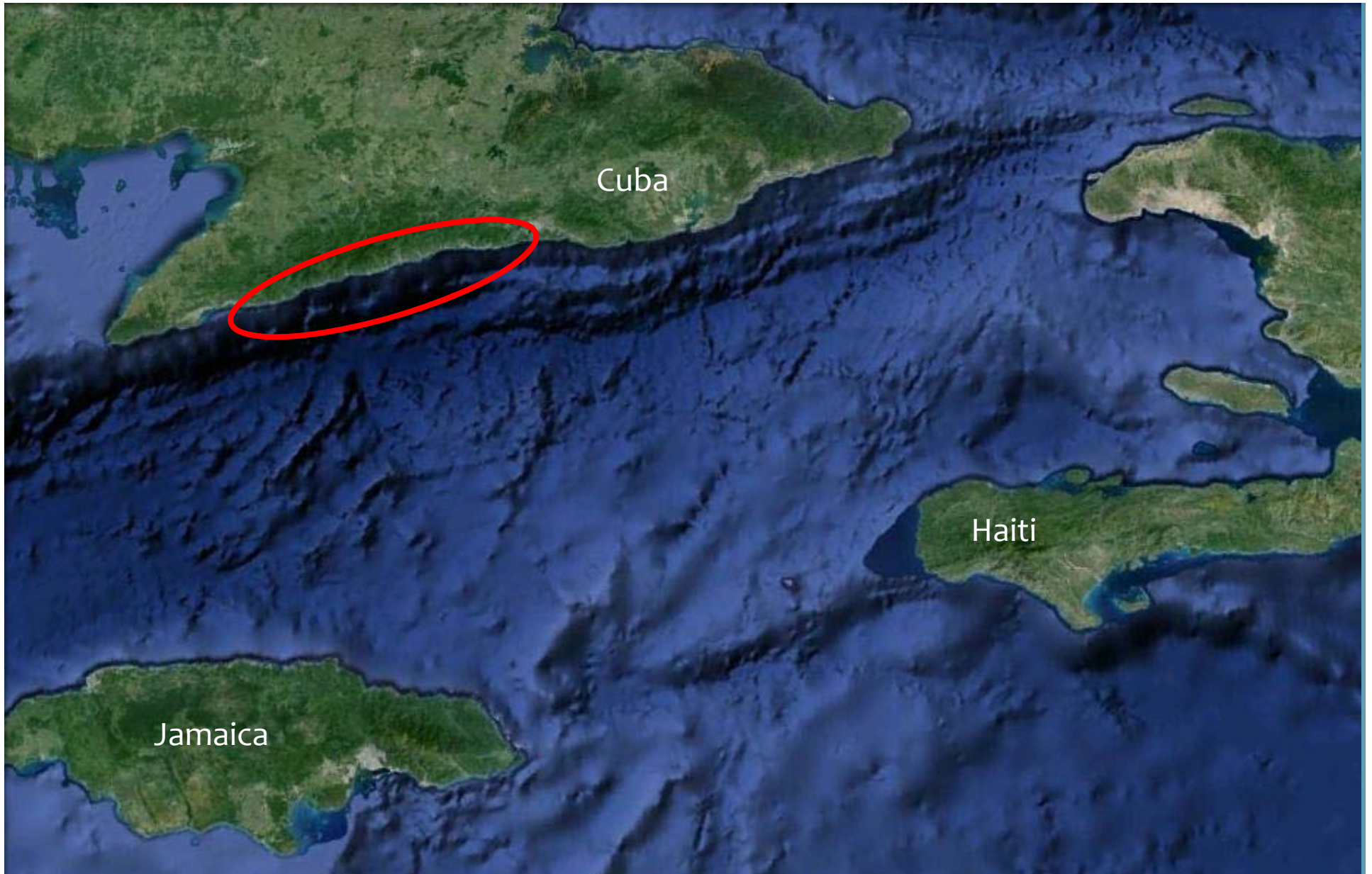
(Pterodroma hasitata)



Edited by James Goetz, Jessica Hardesty Norris and Jennifer Wheelert



2009 Offshore
Petrel Expedition



Expeditions to Pico Torquino and Offshore Cuba

Black-capped Petrel Expeditions on Hispaniola



All Photos Copyright James Goetz



History of Diablotin Observations on Dominica

1820: Holotype collected on Dominica

1858: Diablotin noted as “widespread” on Dominica

1862: Last confirmed Diablotin nest found on Dominica

1887: Expedition to Morne Diablotin and Morne Trois Piton found no Diablotin.

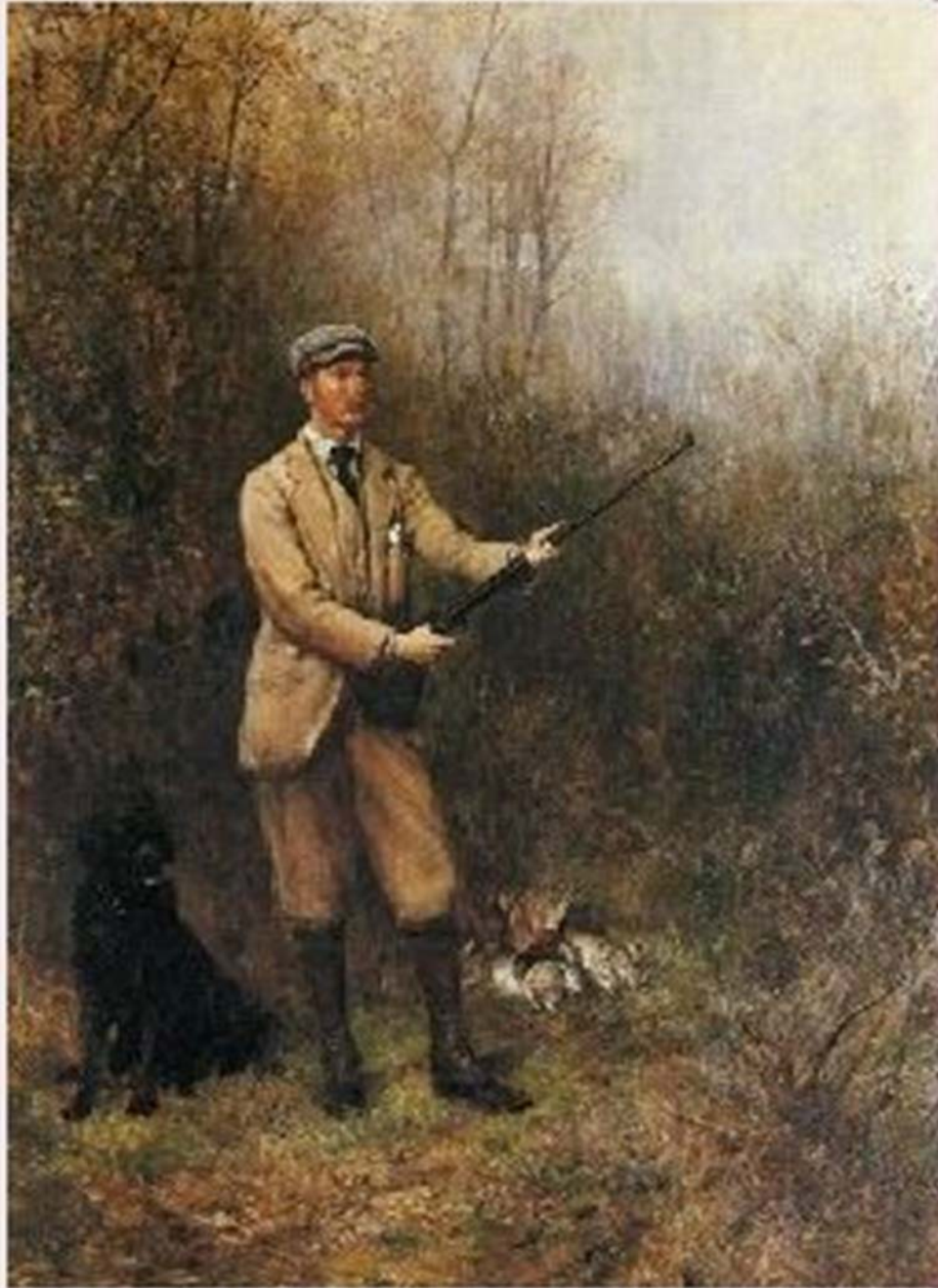
1932: Adult female found grounded in Roseau

1982: Small numbers seen flying offshore along the southeast coast

1990: Adult female found grounded in Roseau

2007: Adult female found grounded in valley above Roseau

2013: Adult found grounded in valley above Roseau



Recent Diablotin Research and Observations on Dominica

2001 and 2010:

EPIC led expeditions to Dominica to look for Diablotin but located no birds. In 2001, the team focused in the southeast mountains. In 2010, the team focused on Morne Diablotin.

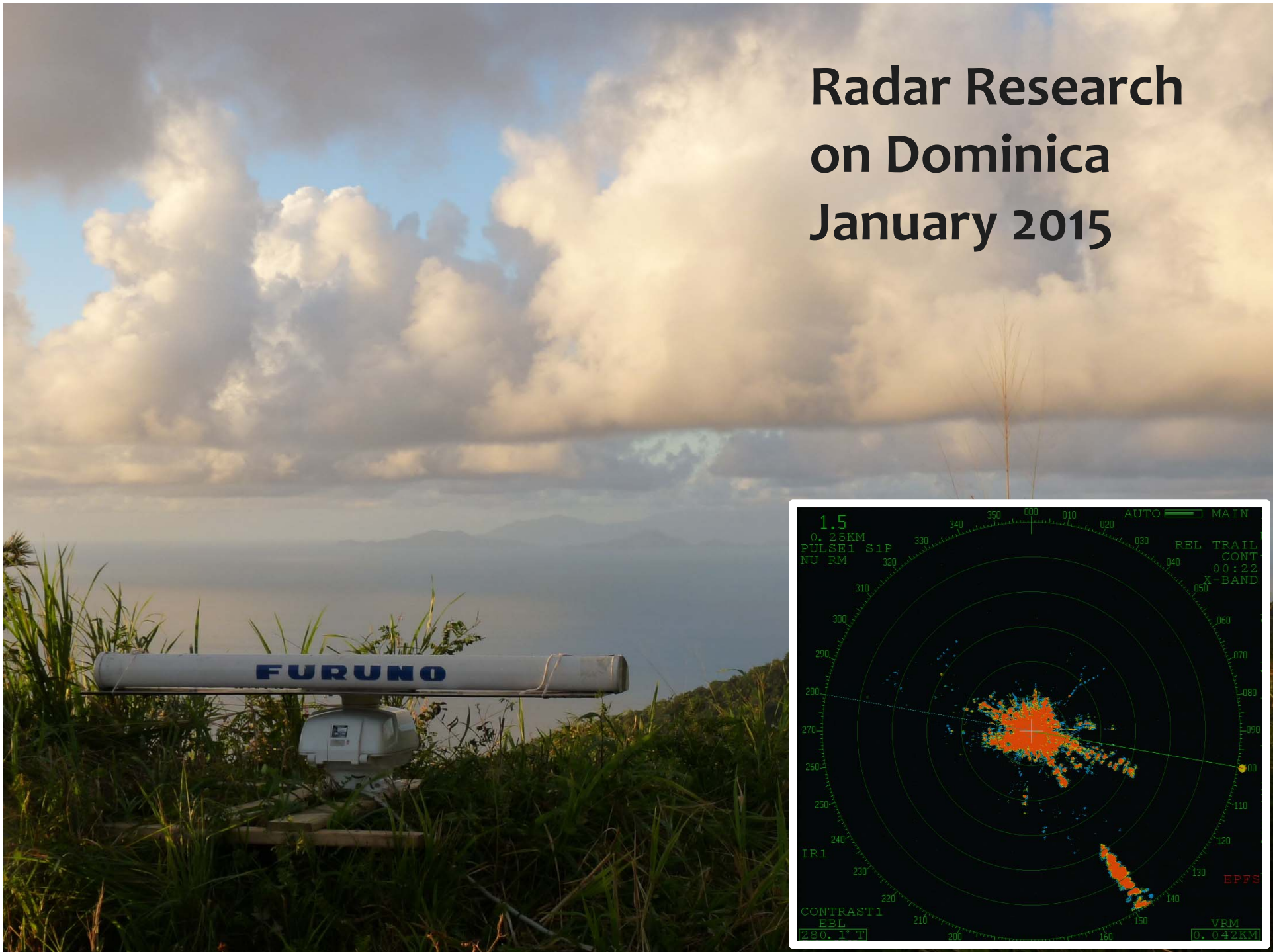


2007 and 2013:

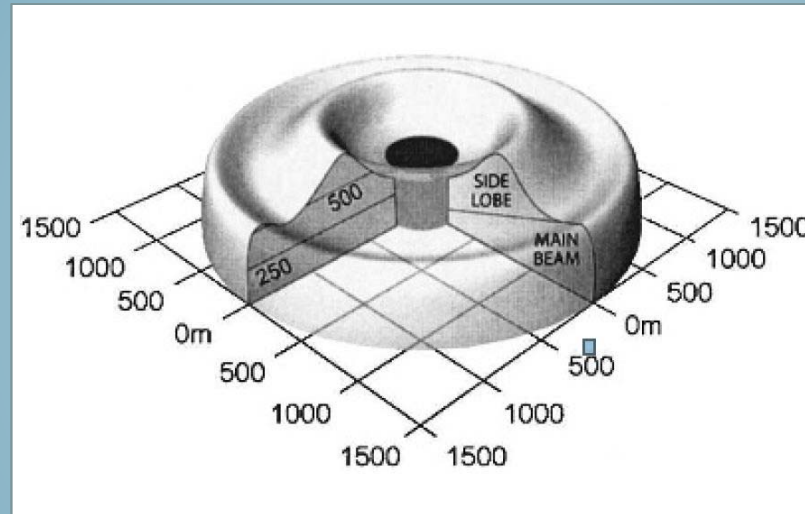
Adult Diablotin found both years on road to Padu, above Roseau



Radar Research on Dominica January 2015



How Does Radar Work?



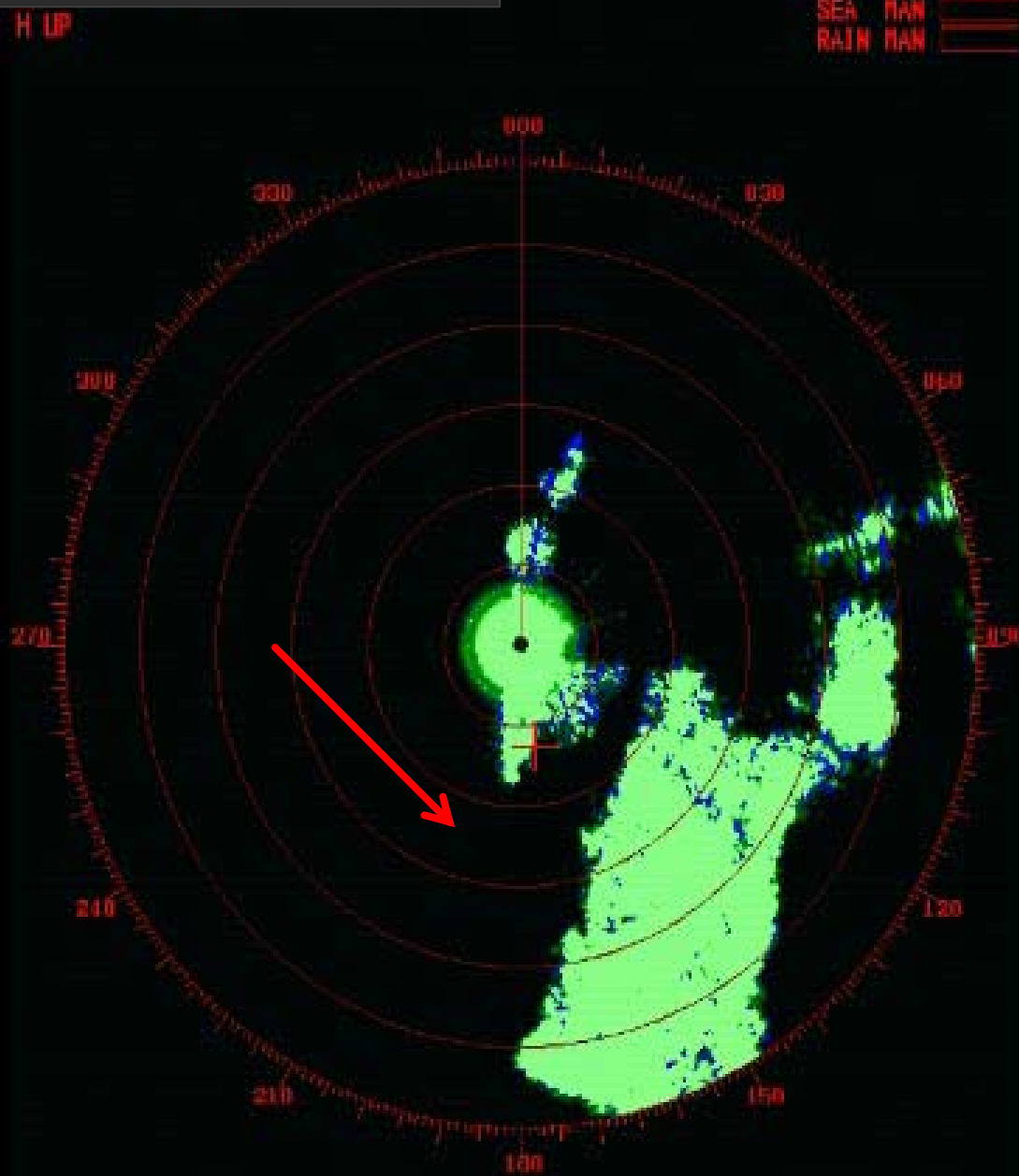
- Radar is set to detect any movement out to 1.5 km
- A radar wave is sent out from unit, bounces off object and a target signal is returned
- Speed of moving object is determined by measuring space between targets

Petrels are identified on radar by:

- Flight Speed
- Flight Direction
- Flight Behavior

Black-capped Petrel in Flight

TUNE AUTO
GAIN RAN
SEA RAN
RAIN RAN



DR BCPE

01/24/12 10:47:14 PM



Infrared Night Vision

- Use this to simultaneously visually observe petrels that the researchers observe on the radar unit



Acoustic Monitoring



Radar Stations on Dominica



Results



- 20 total stations
- 13 Stations along West Coast
- 7 Stations along East Coast
- 10 Stations that monitored potential flight corridors
- 10 Stations that monitored potential nest areas

Results



- 968 petrel-like targets island-wide
- 17 of the 20 stations had petrel-like targets detected on radar
- 8 visuals with night-vision of flying petrels
- 5 stations had visuals of flying petrels

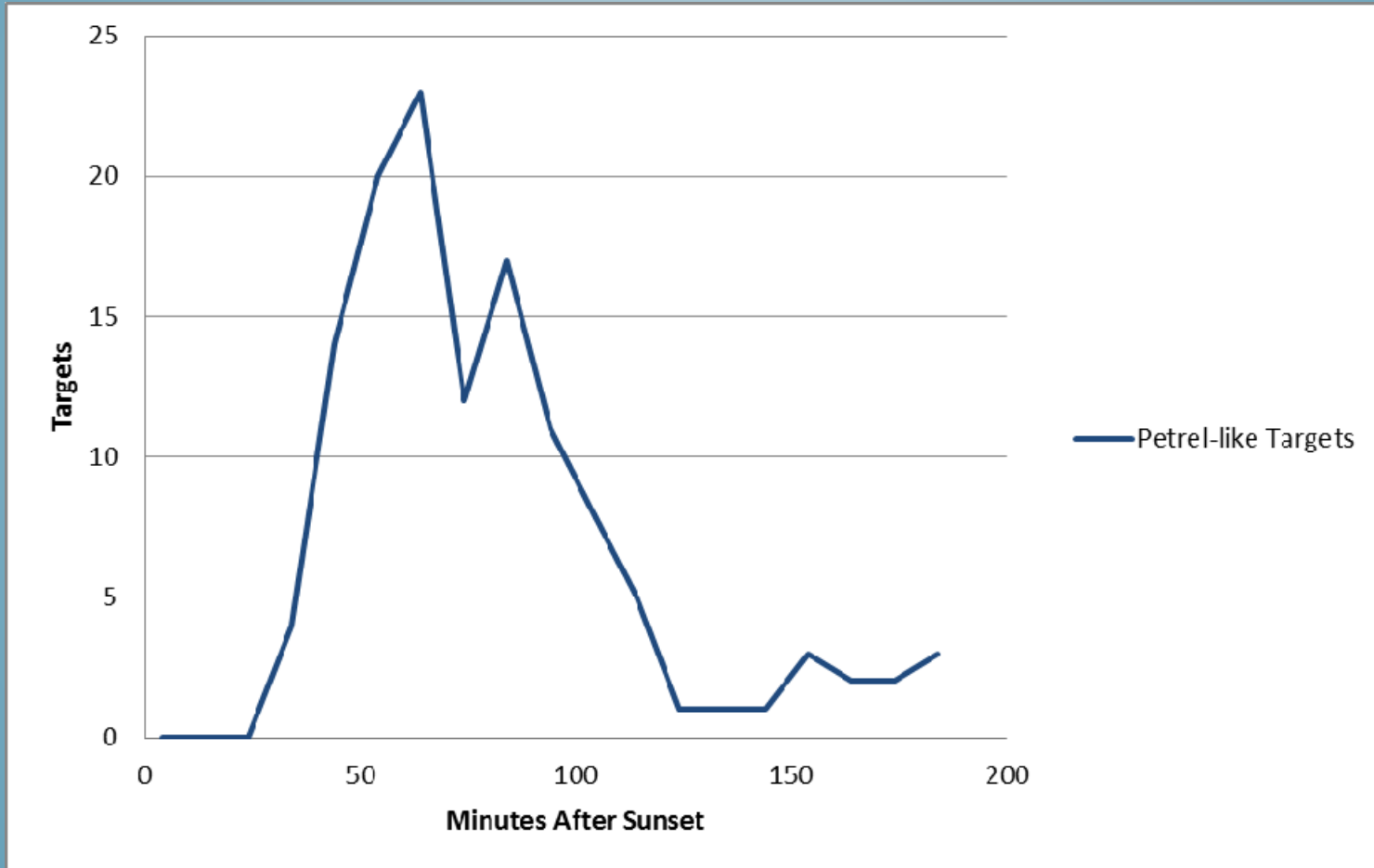
Results



63% of petrel-like targets were detected among four locations:

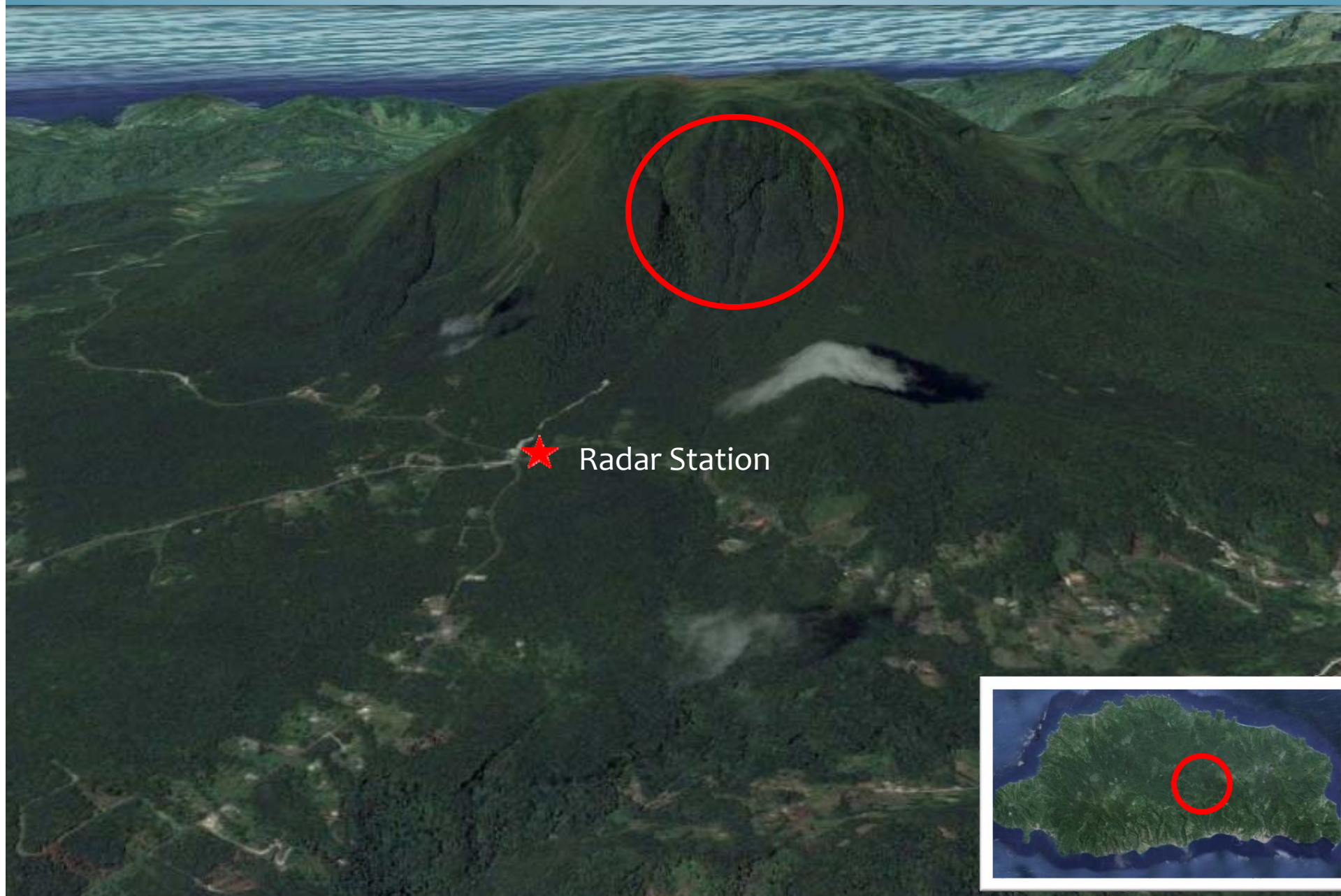
- **Morne Diablotin (n=205 targets)**
- **Morne Trois Piton (n=106 targets),**
- **Morne Micotrin (n=127 targets)**
- **Morne Anglais (n=168 targets)**

Results



The peak period of petrel activity was between 50 minutes and 80 minutes after sunset

Morne Trois Piton Nest Habitat



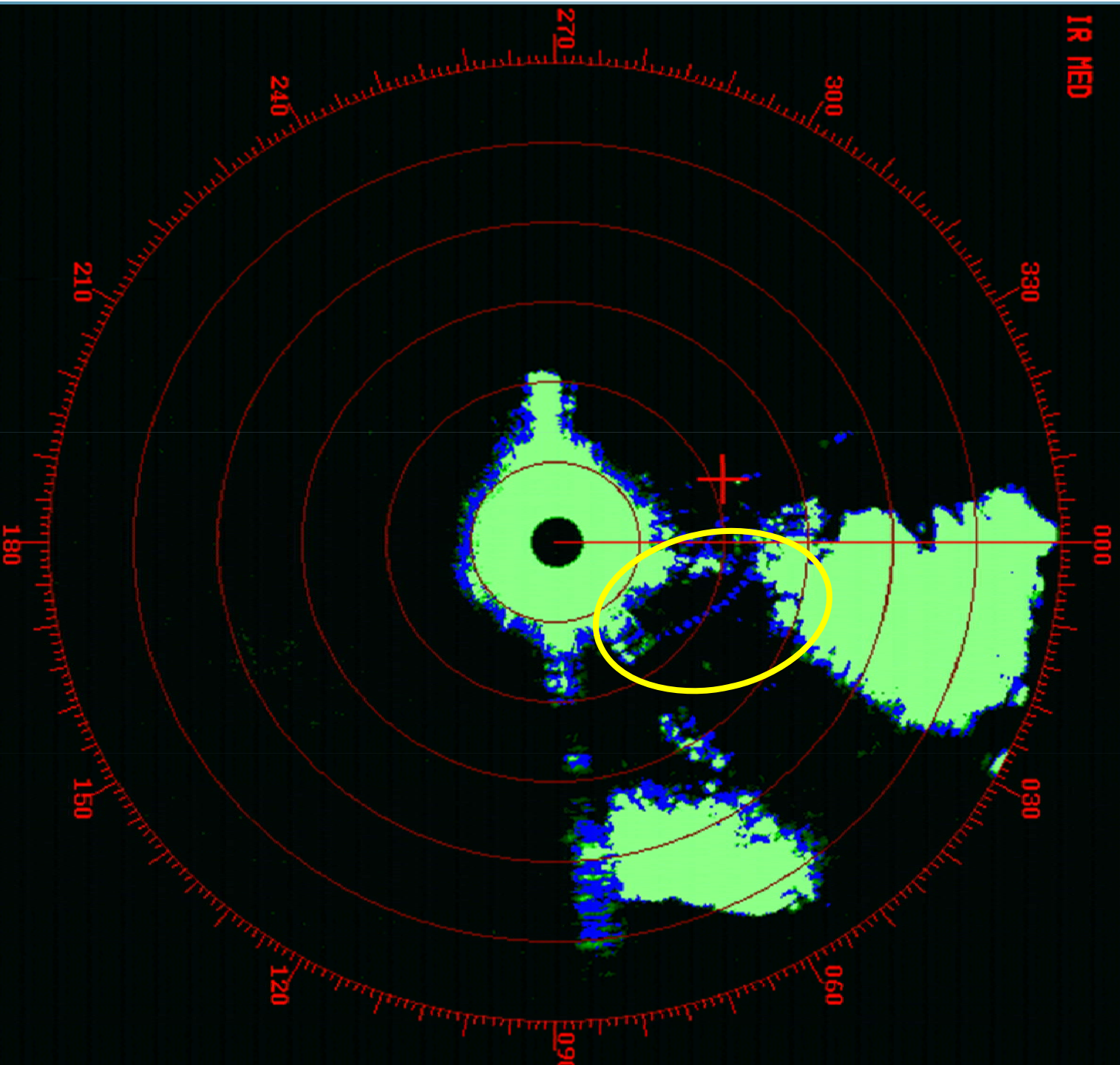
★ Radar Station

1.5
SP
H UP

0.25
KM

IR MED

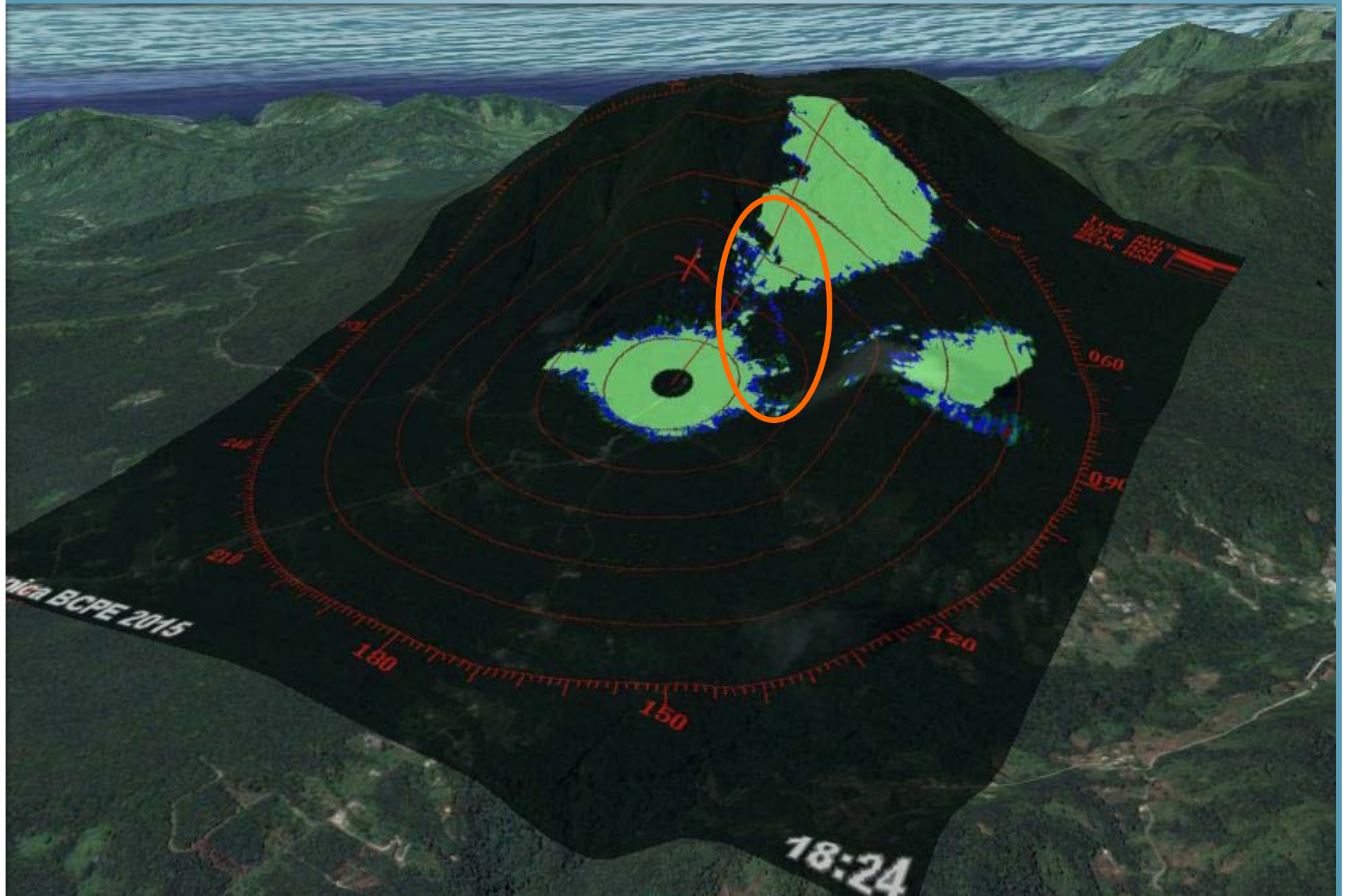
TUNE AUTO
GAIN MAN
SEA MAN
RAIN MAN



Domnica BCPPE 2015

18:24

Morne Trois Piton Nest Habitat



Morne Diablotin

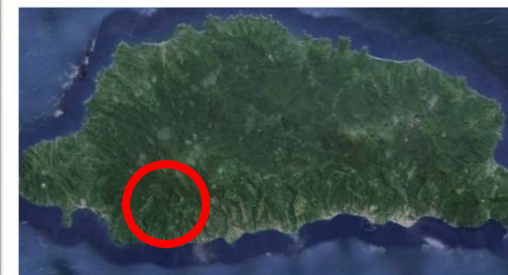
Morne Diablotin; Elev. 4,747ft

n=204
targets

Salisbury Flyway

Verified:

- Flight speed >50km/hr
- Flight behavior was straight-line
- Flight direction was between colony and sea
- Petrels almost exclusively used valleys as flyway



Morne Diablotin Southwest Slopes



Morne Diablotin Northwest Slopes



Morne Diablotin Northeast Slopes





Morne Trois Piton Southwest Slopes



Morne Trois Piton Northeast Slopes



Morne Trois Piton Northwest Slopes



Morne Micotrin

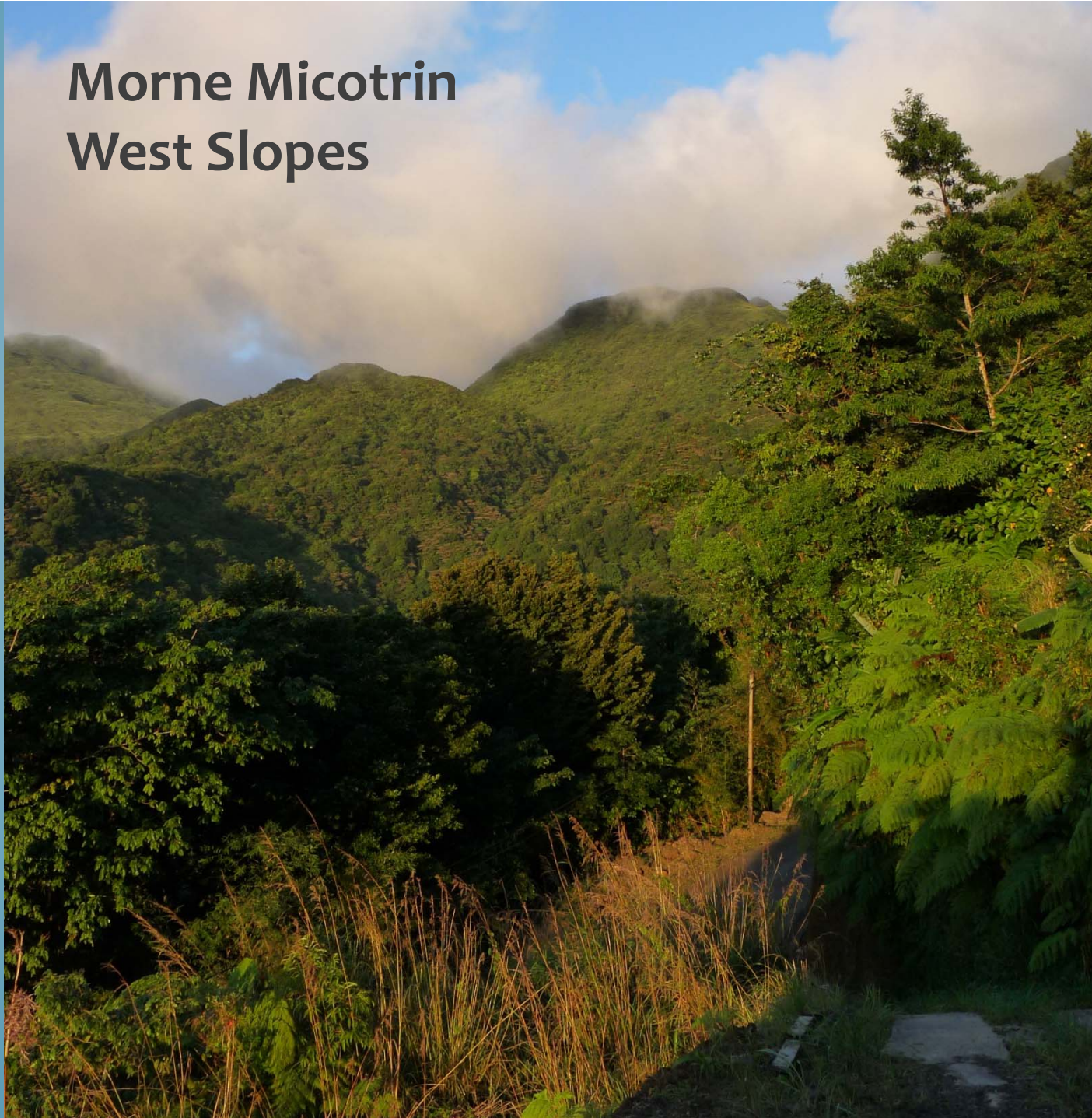
Morne Micotrin;
Elev. 4,006 ft

★ n= 127 targets

Roseau River Flyway



Morne Micotrin West Slopes



Morne Micotrin Summit Plateau



Morne Micotrin Southern Slopes



Southeast Mountains



Morne Anglais Northwest Slopes



Southeast Mountains Northern Slopes



Southeast Mountains East Slopes



What's Next?



- Find petrel nests on Dominica
- Partnership between Dominica Division of Parks and Wildlife and Grupo Jaragua of Dominican Republic to learn petrel nest search and monitoring techniques.

Adam C Brown

abrown@epicislands.org

Machel Sulton

machelsulton@hotmail.com

Environmental Protection in the Caribbean

www.epicislands.org or www.facebook.com/epicislands

Thank You

Disney Worldwide Conservation Fund

International Black-capped Petrel Working Group

Dominica Forestry, Wildlife & Parks Division

American Bird Conservancy

US Fish and Wildlife Service

Birdlife International

Conservation Metrics

Pelican Inc.

James Goetz

James Tietz

Elias Elias

Jennifer Wheeler

Stephen Durand

Jacqueline Andre

Leslie Rawle

Josh Barron

