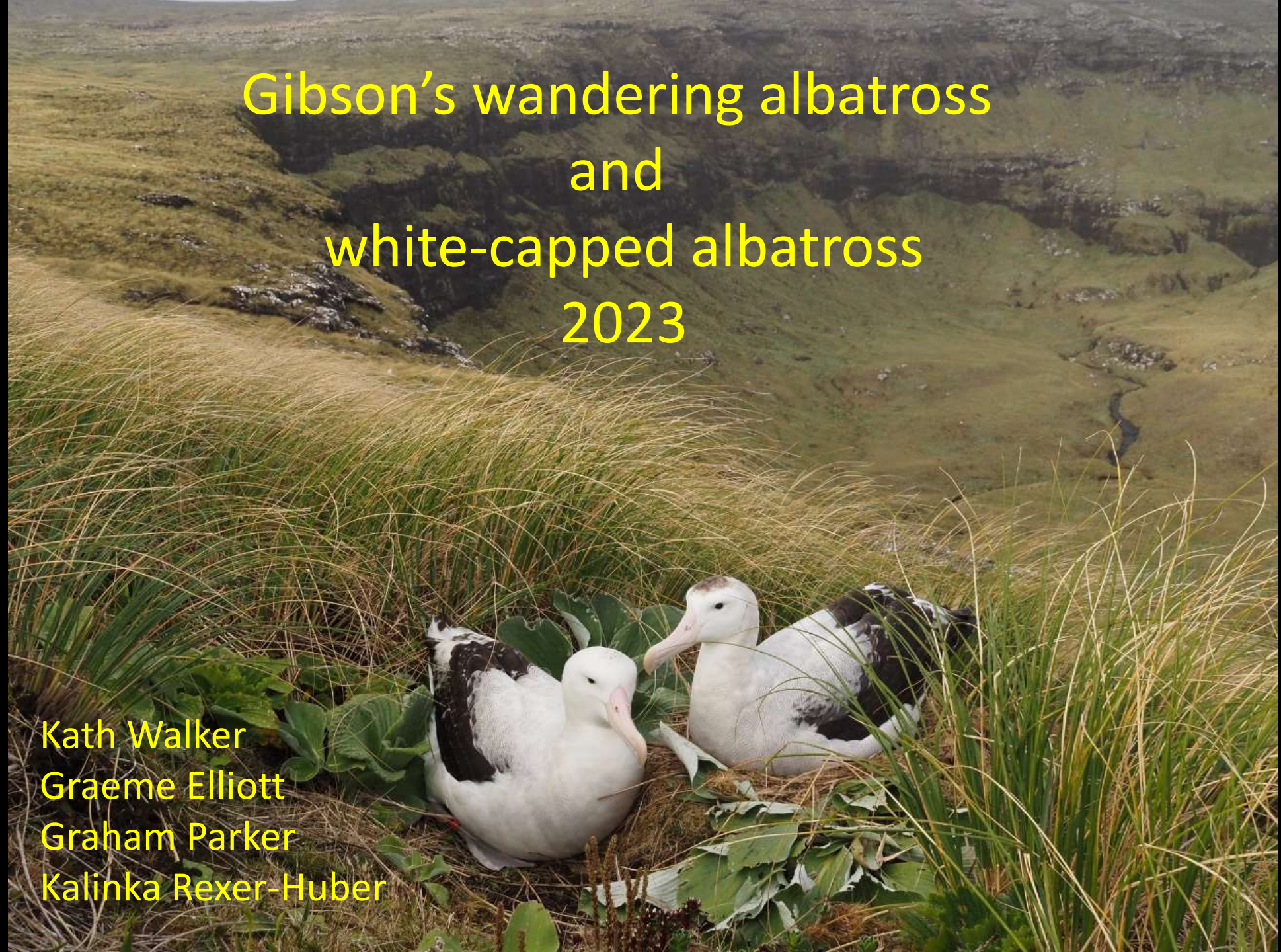


Gibson's wandering albatross and white-capped albatross 2023

Kath Walker
Graeme Elliott
Graham Parker
Kalinka Rexer-Huber

9 December 2022

—

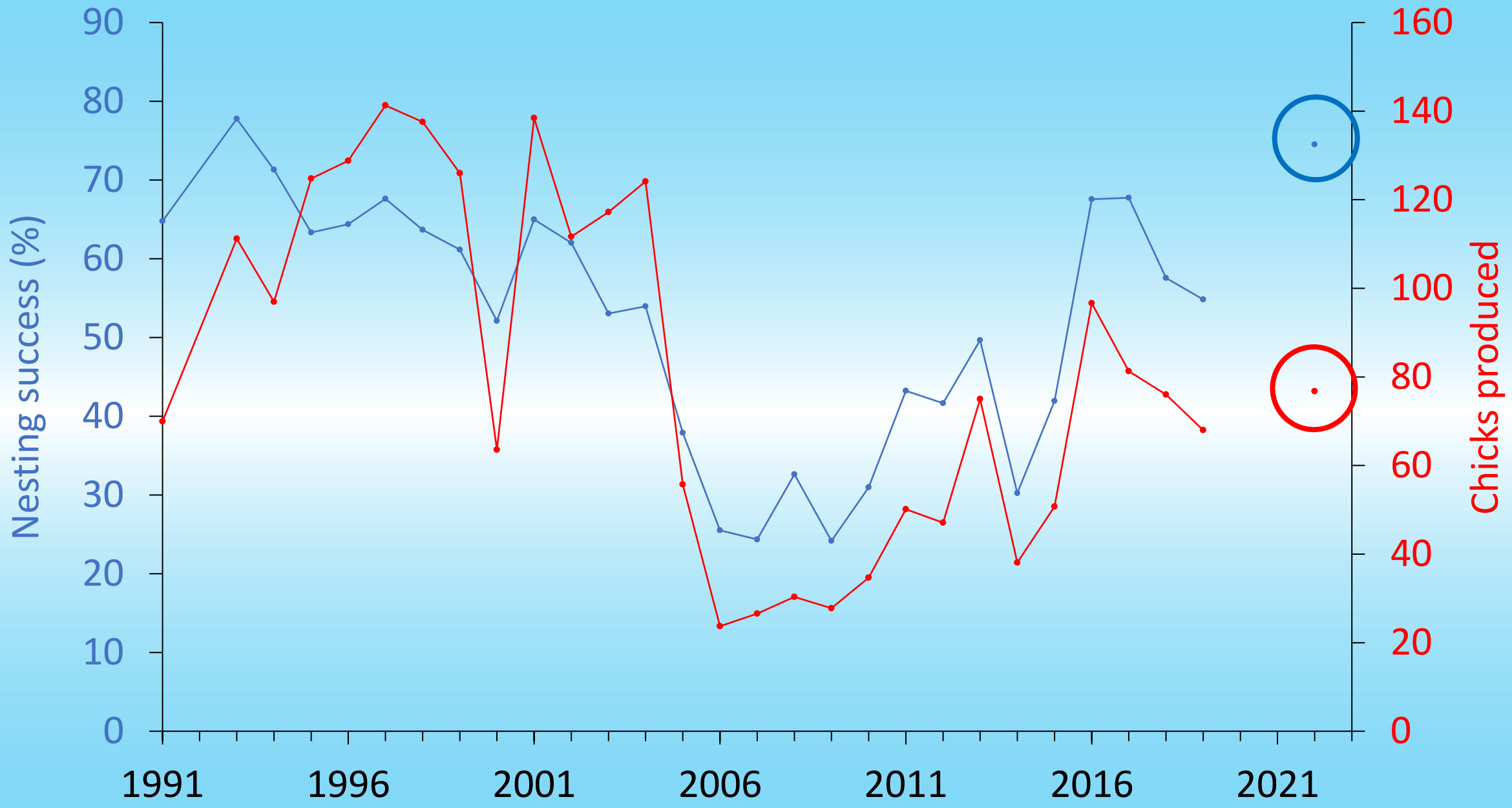
11 February 2023.


Enderby Island
Port Ross
Disappointment Island
Carnley Harbour
Adams Island
0 2.5 5 km


Carnley Harbour
Adams Island
0
1
2 km

74% nesting success

71 chicks banded


Nesting success (%)
90
80
70
60
50
40
30
20
10
0
160
140
120
100
80
60
40
20
0
Chicks produced
1991
1996
2001
2006
2011
2016
2021

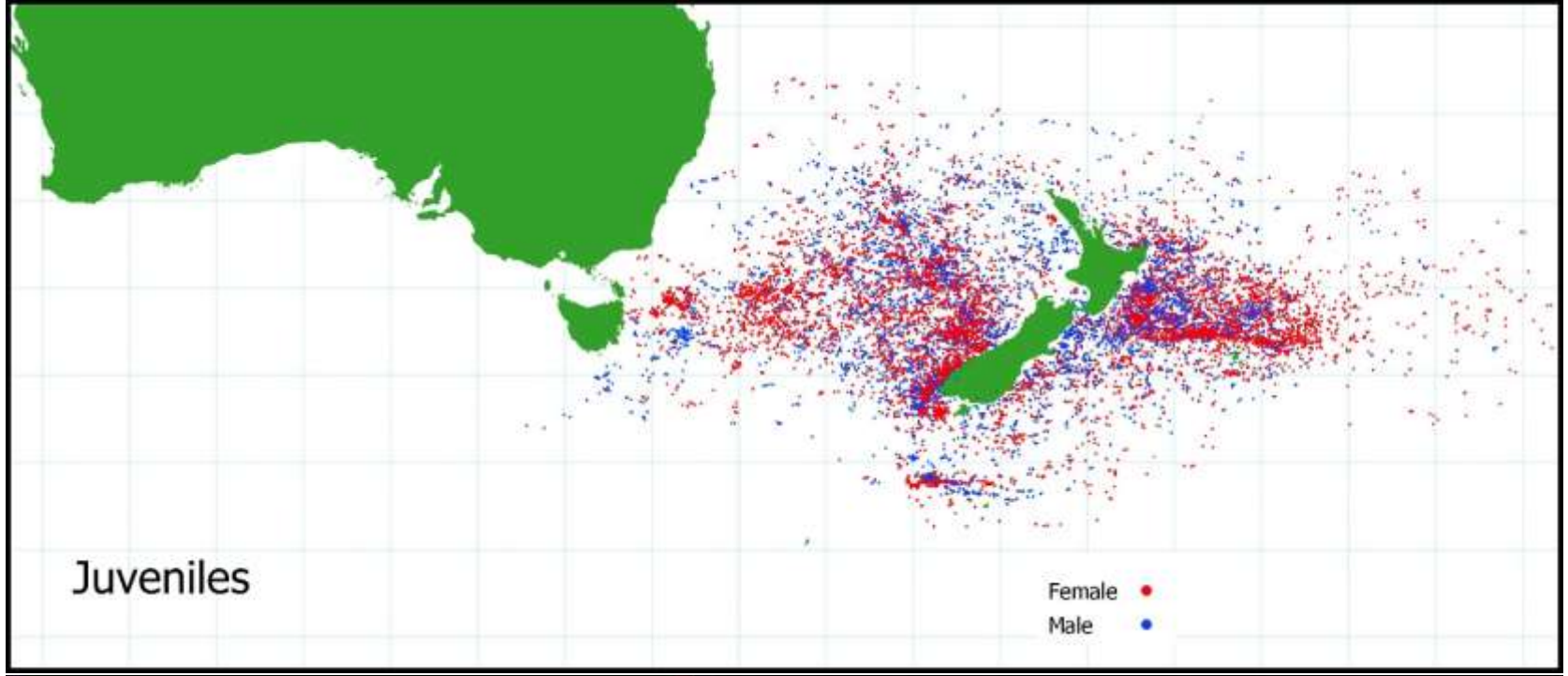
Transmitters on 22 chicks

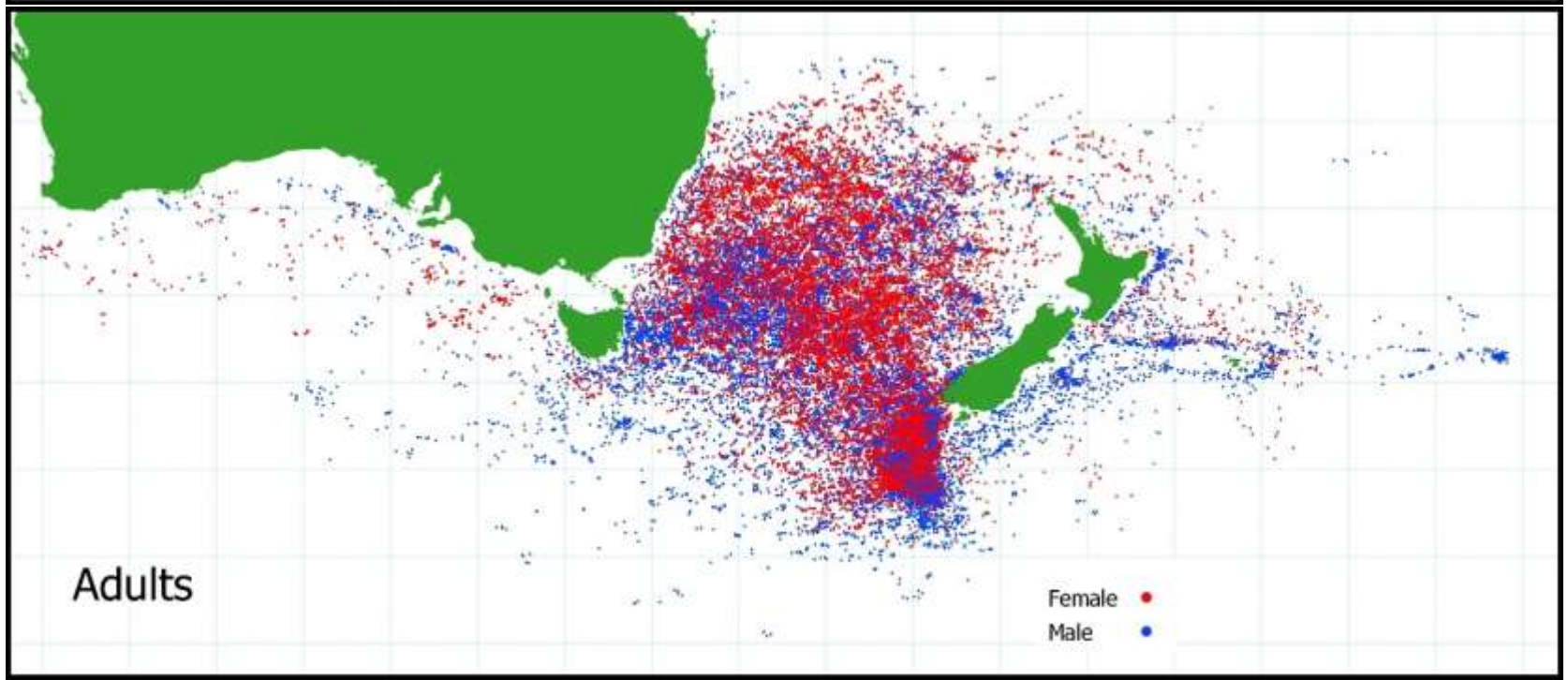
12 females

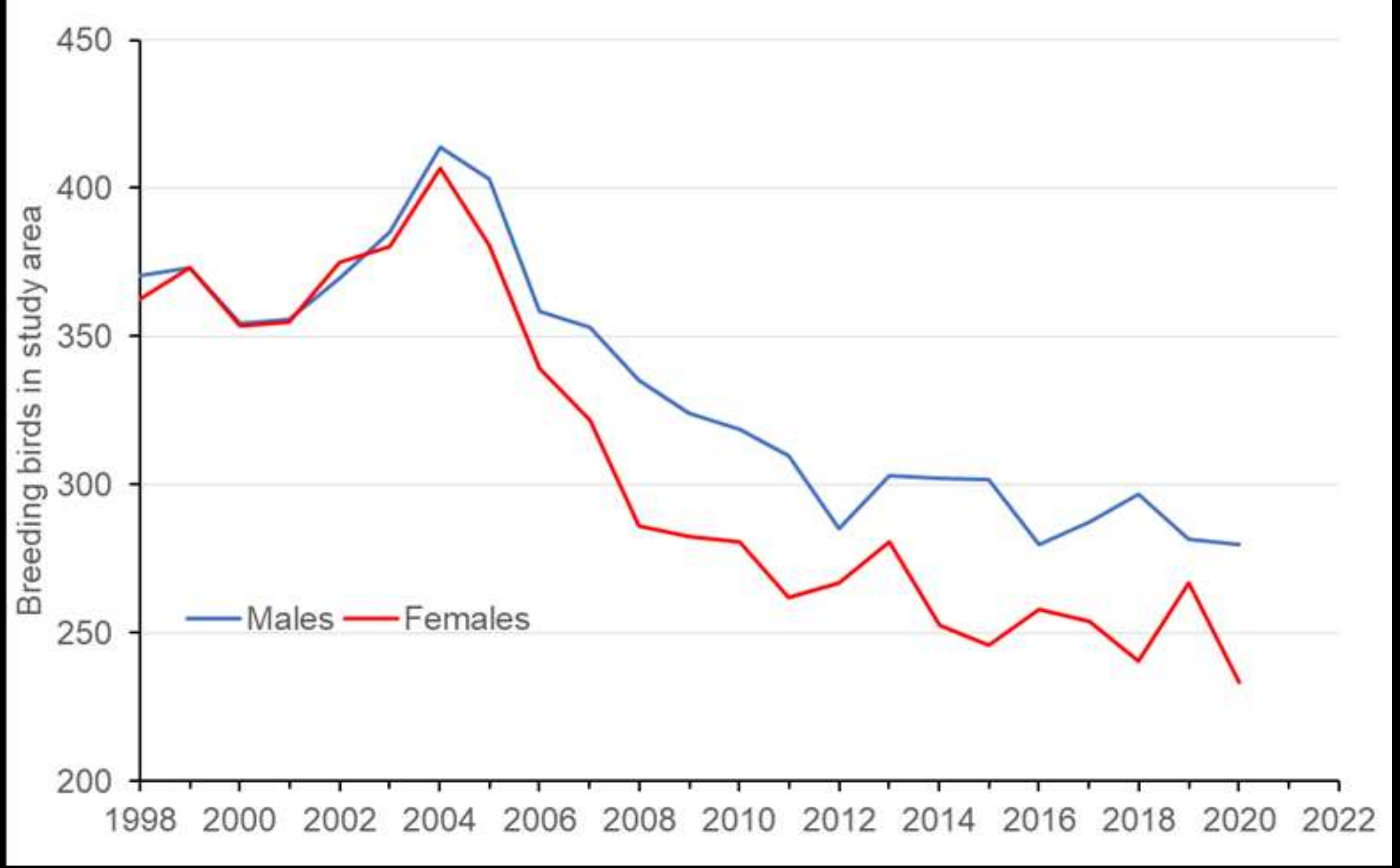
10 males

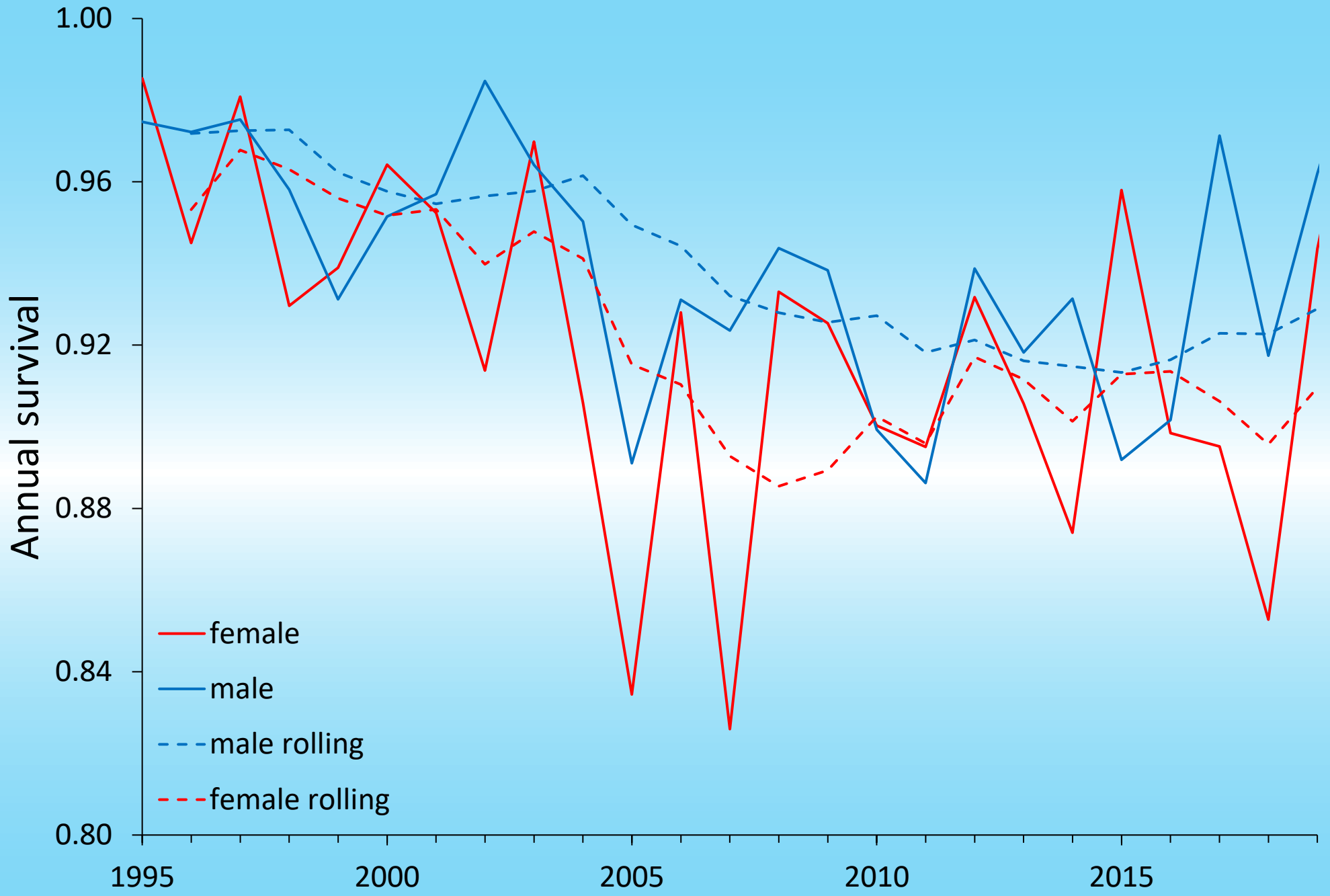
Geolocators on 16 chicks

retrieve in 5 years time


Juveniles
Female
Male


Adults
Female
Male


450
400
350
300
250
200
Breeding birds in study area
Males
Females
1998
2000
2002
2004
2006
2008
2010
2012
2014
2016
2018
2020
2022

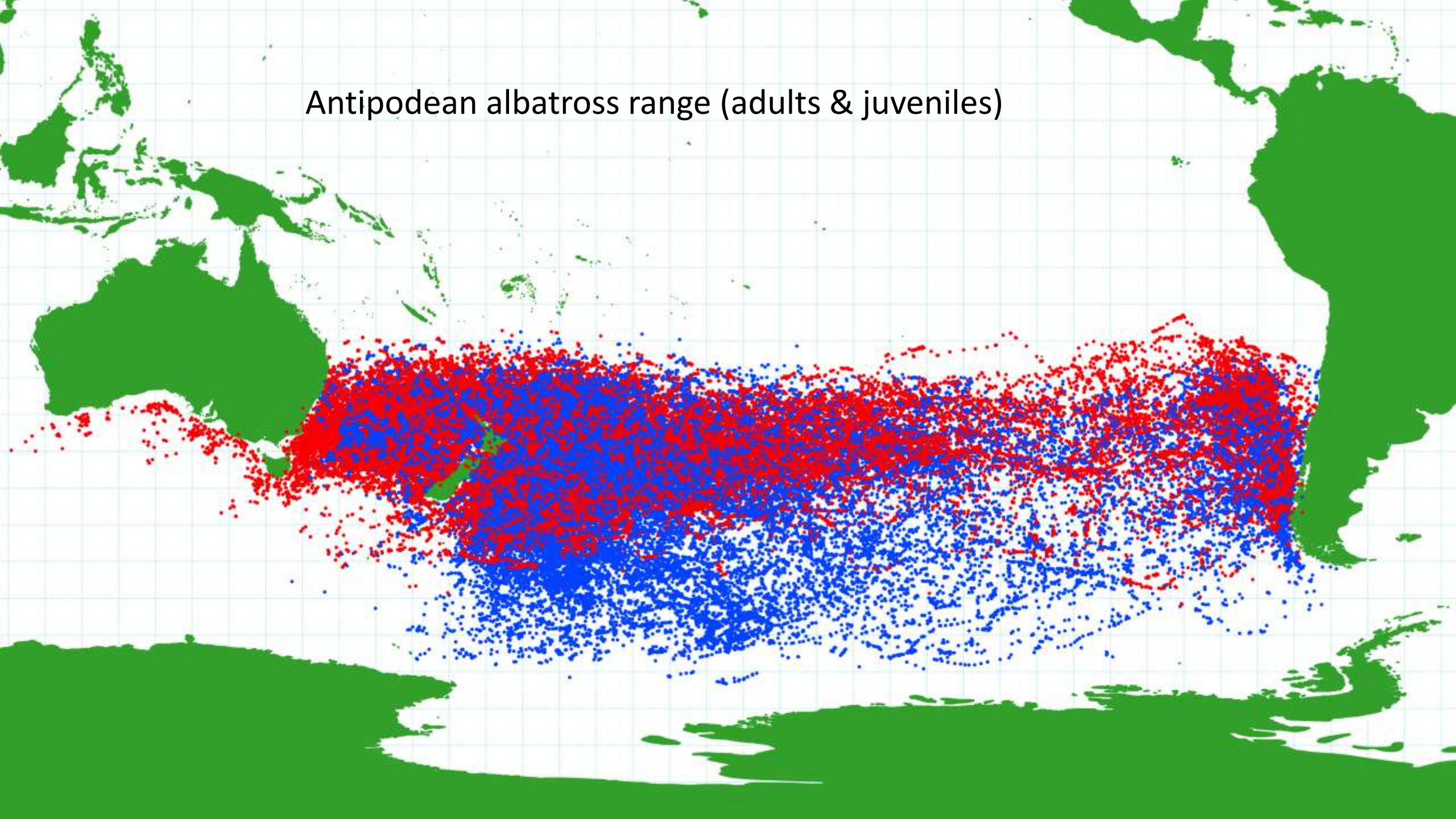

1.00
0.96
0.92
0.88
0.84
0.80
Annual survival
1995
2000
2005
2010
2015
female
male
male rolling
female rolling

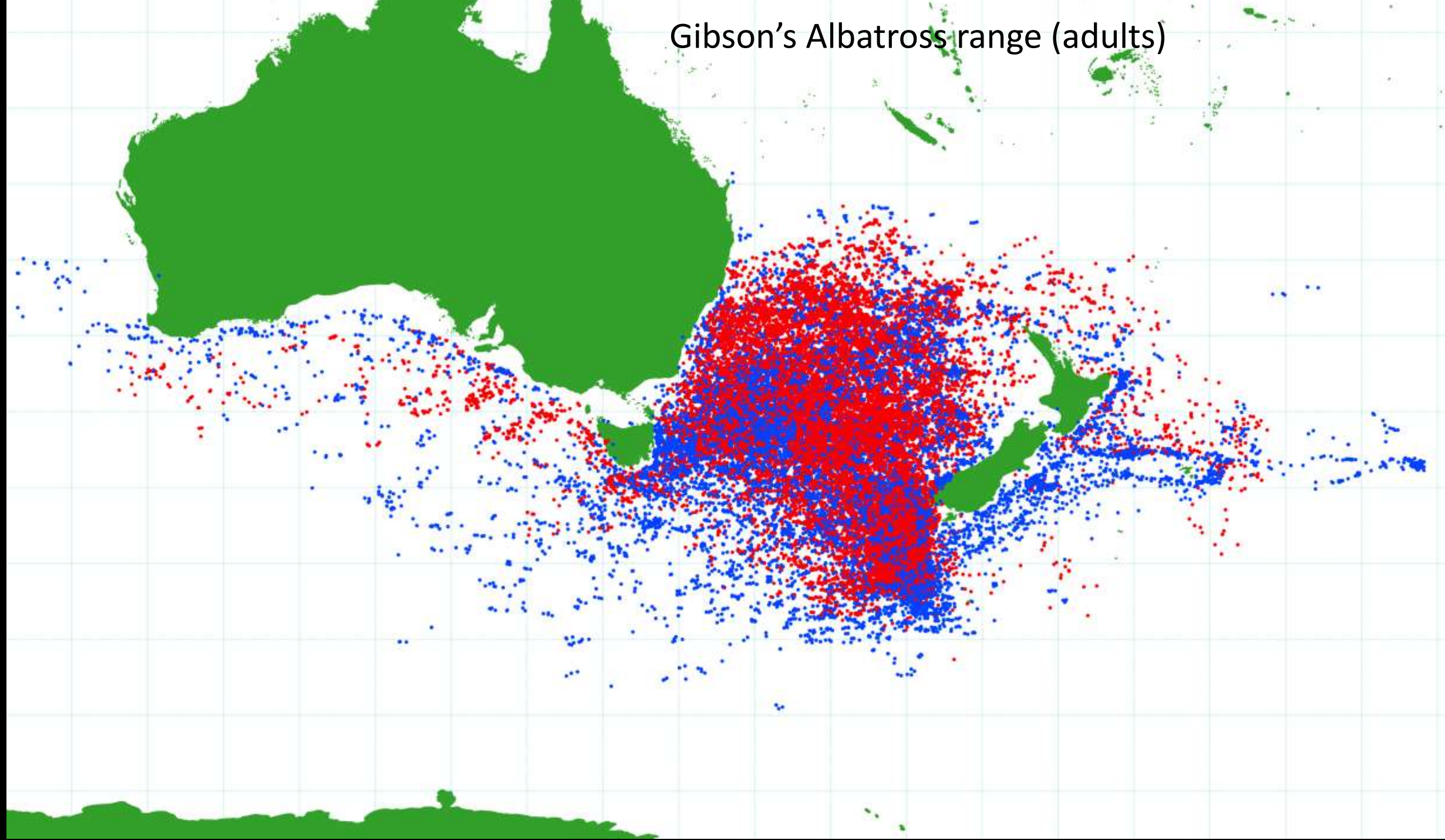
20 year old female Gibson’s Albatross on left, male on right

Adams Island

20 year old female Antipodean albatross on left, male on right

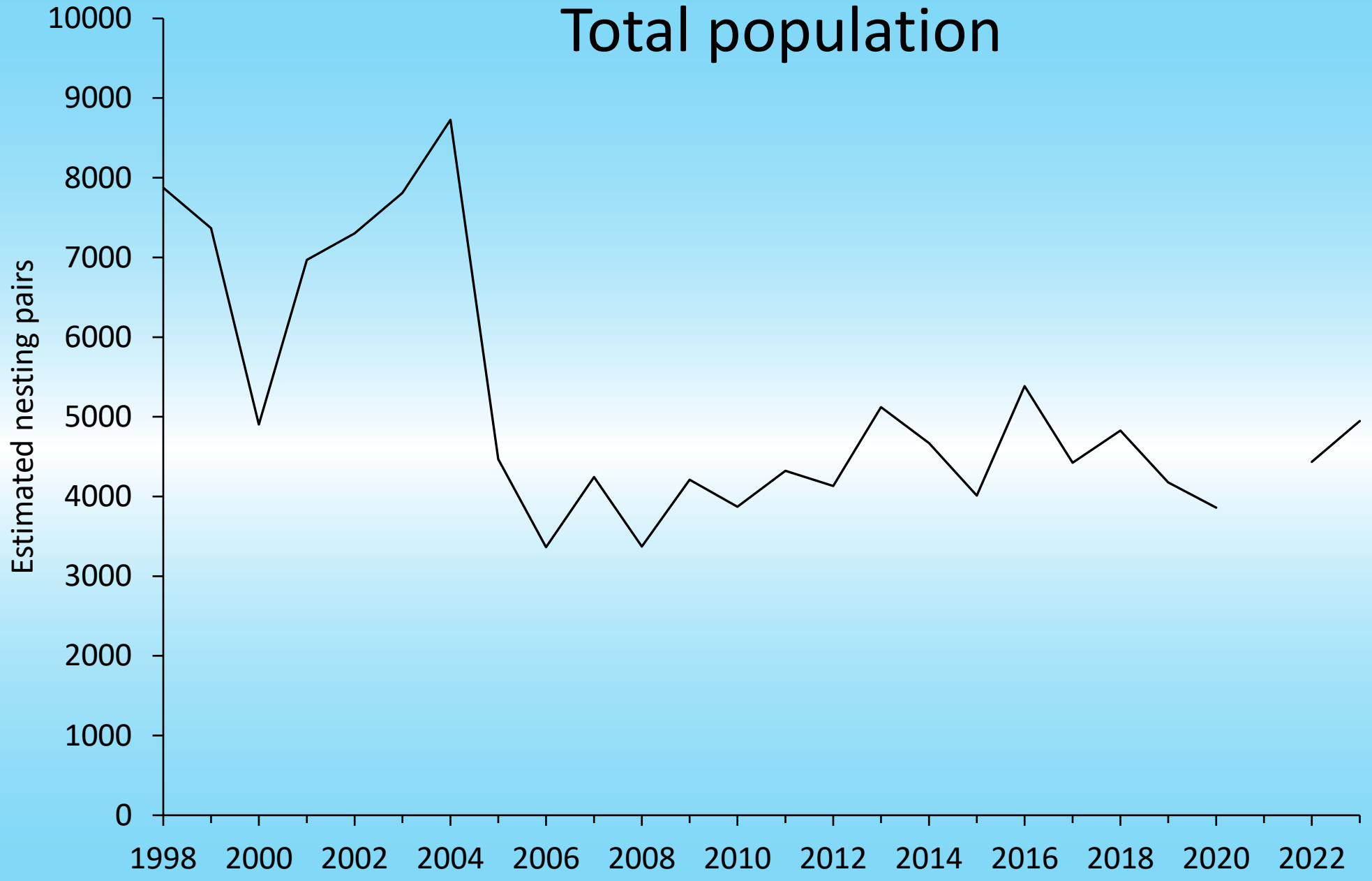
Antipodes Island

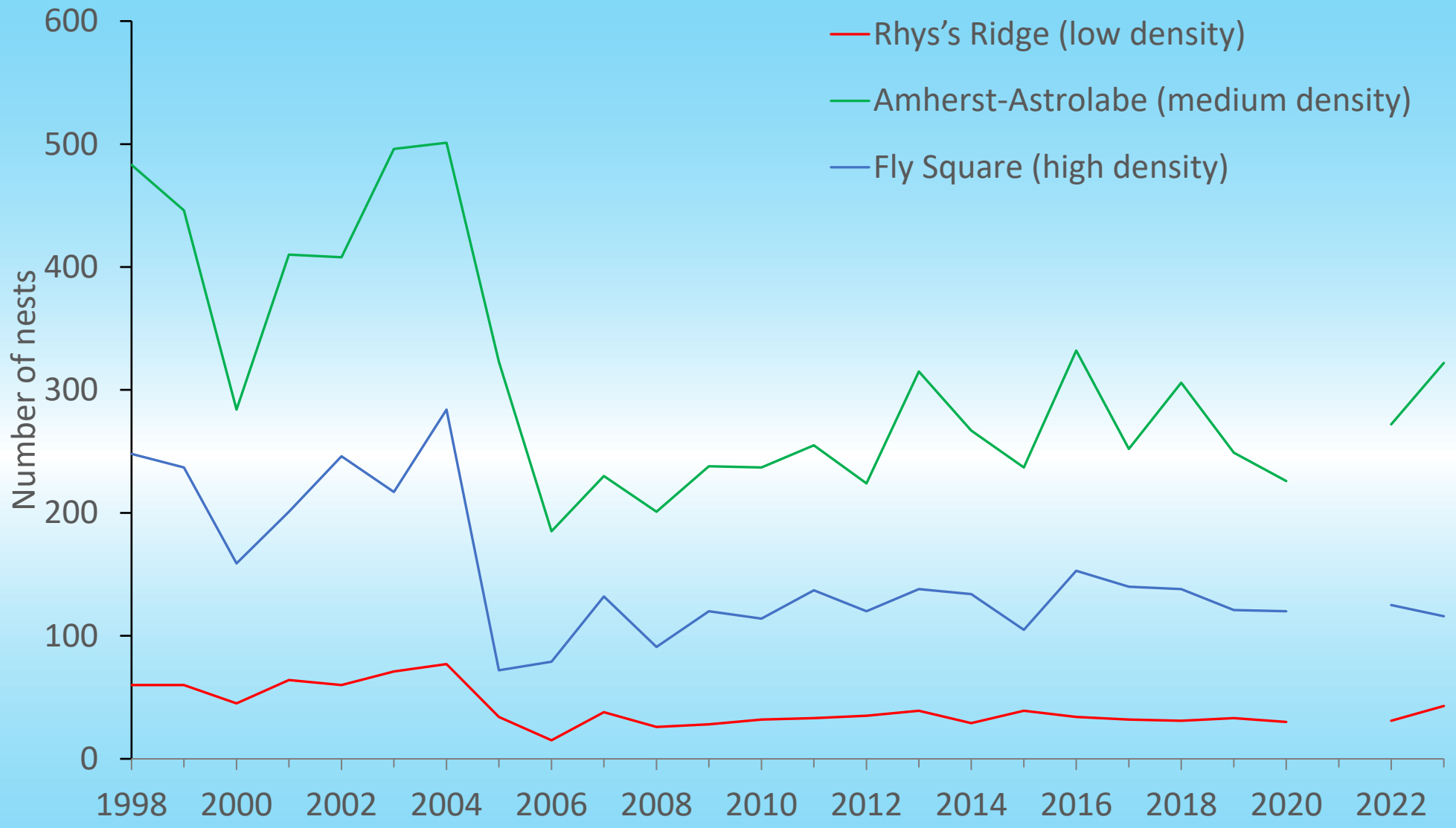

Antipodean albatross range (adults & juveniles)


Gibson’s Albatross range (adults)

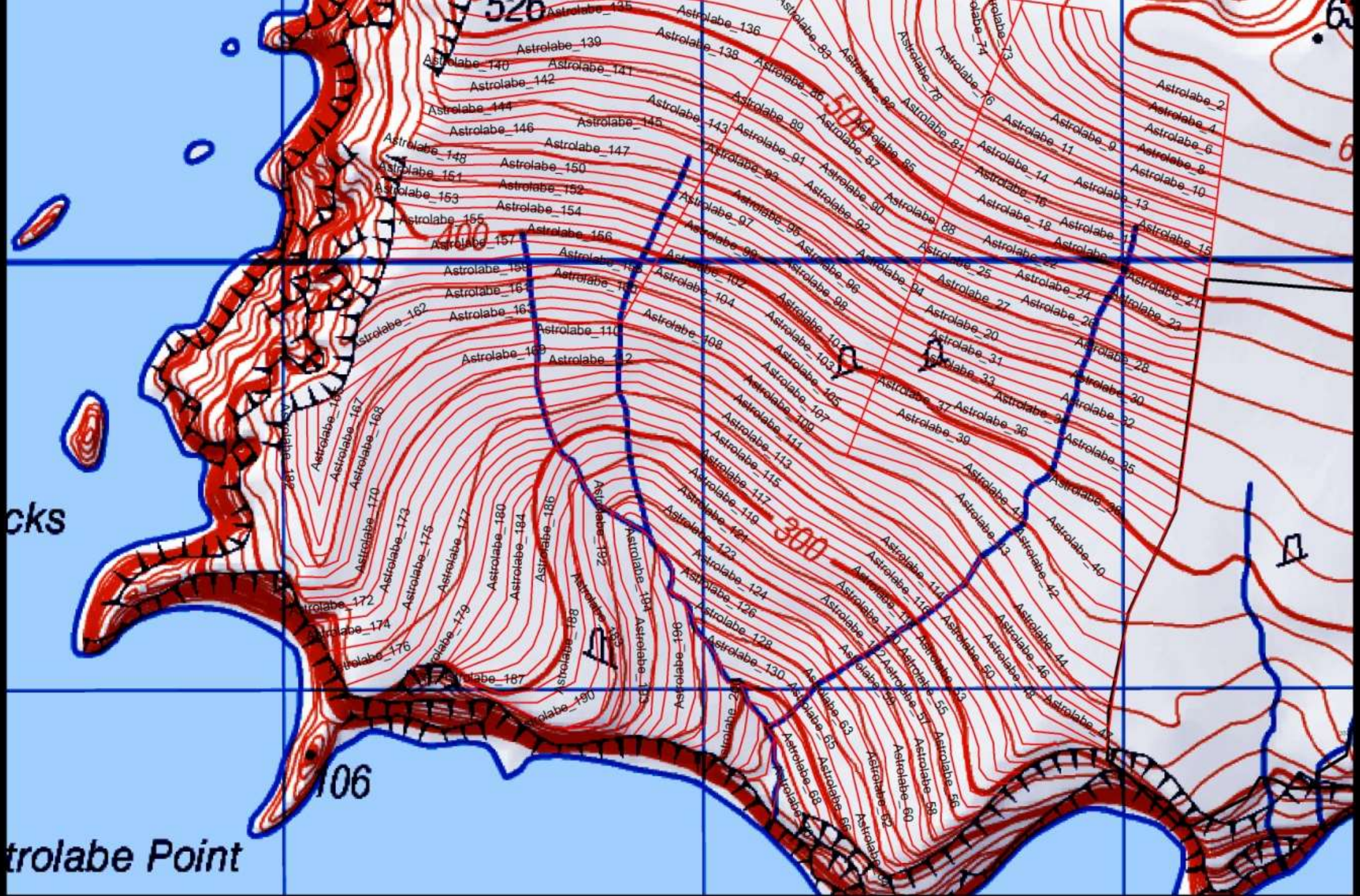

Carnley Harbour
Adams Island
0
1
2 km

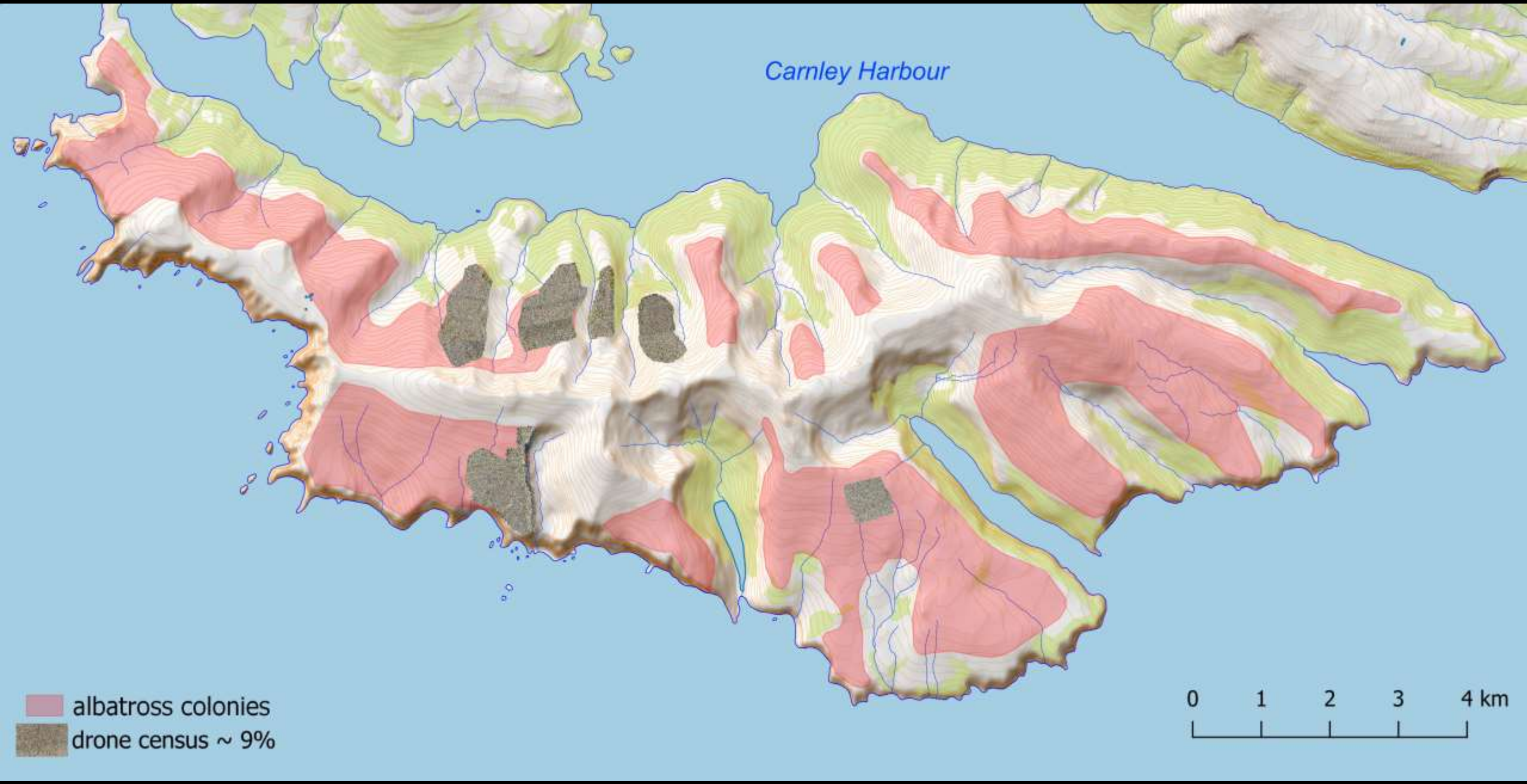
Total population

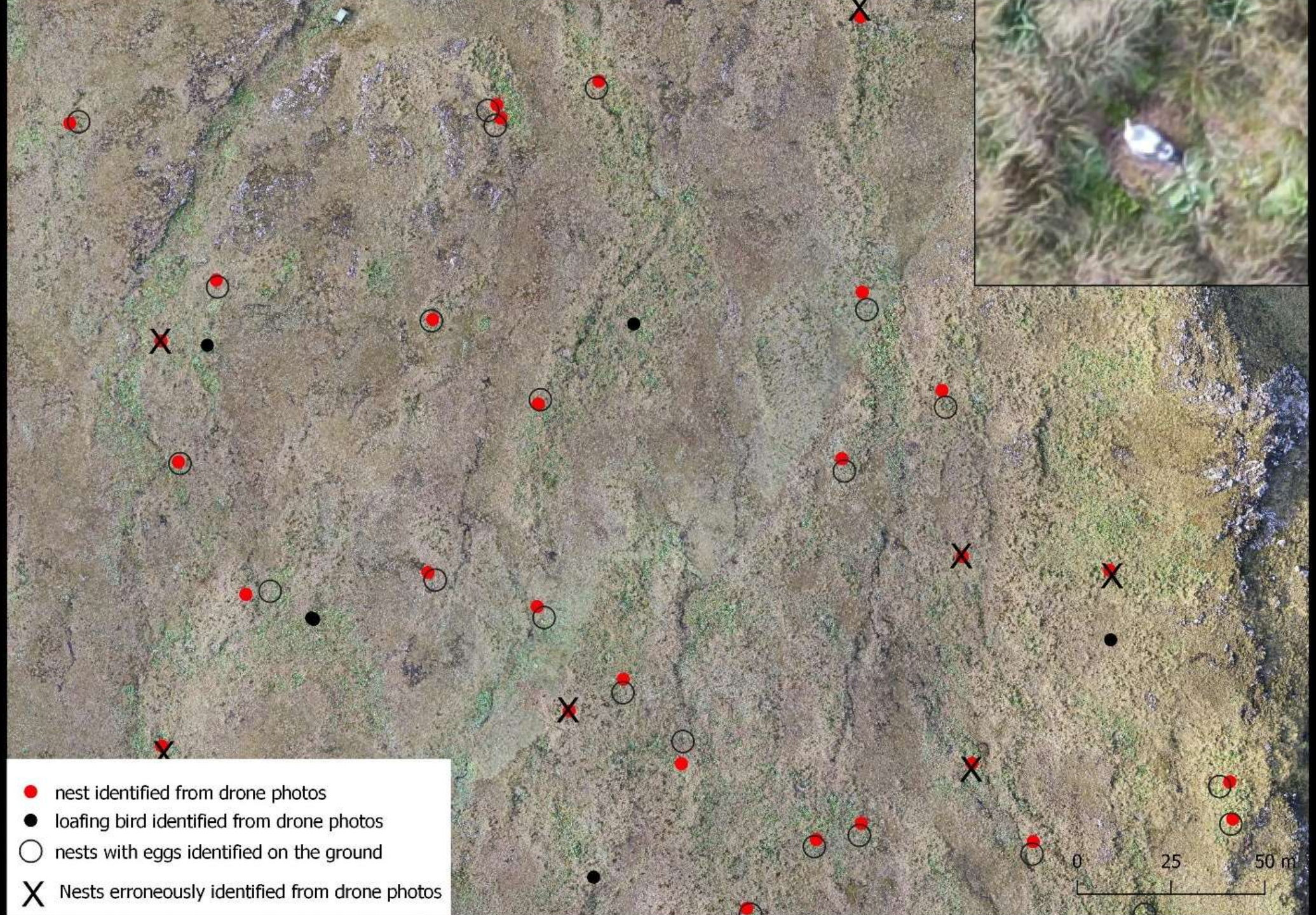



Rhys's Ridge (low density)
Amherst-Astrolabe (medium density)
Fly Square (high density)
Number of nests
600
500
400
300
200
100
0
1998
2000
2002
2004
2006
2008
2010
2012
2014
2016
2018
2020
2022

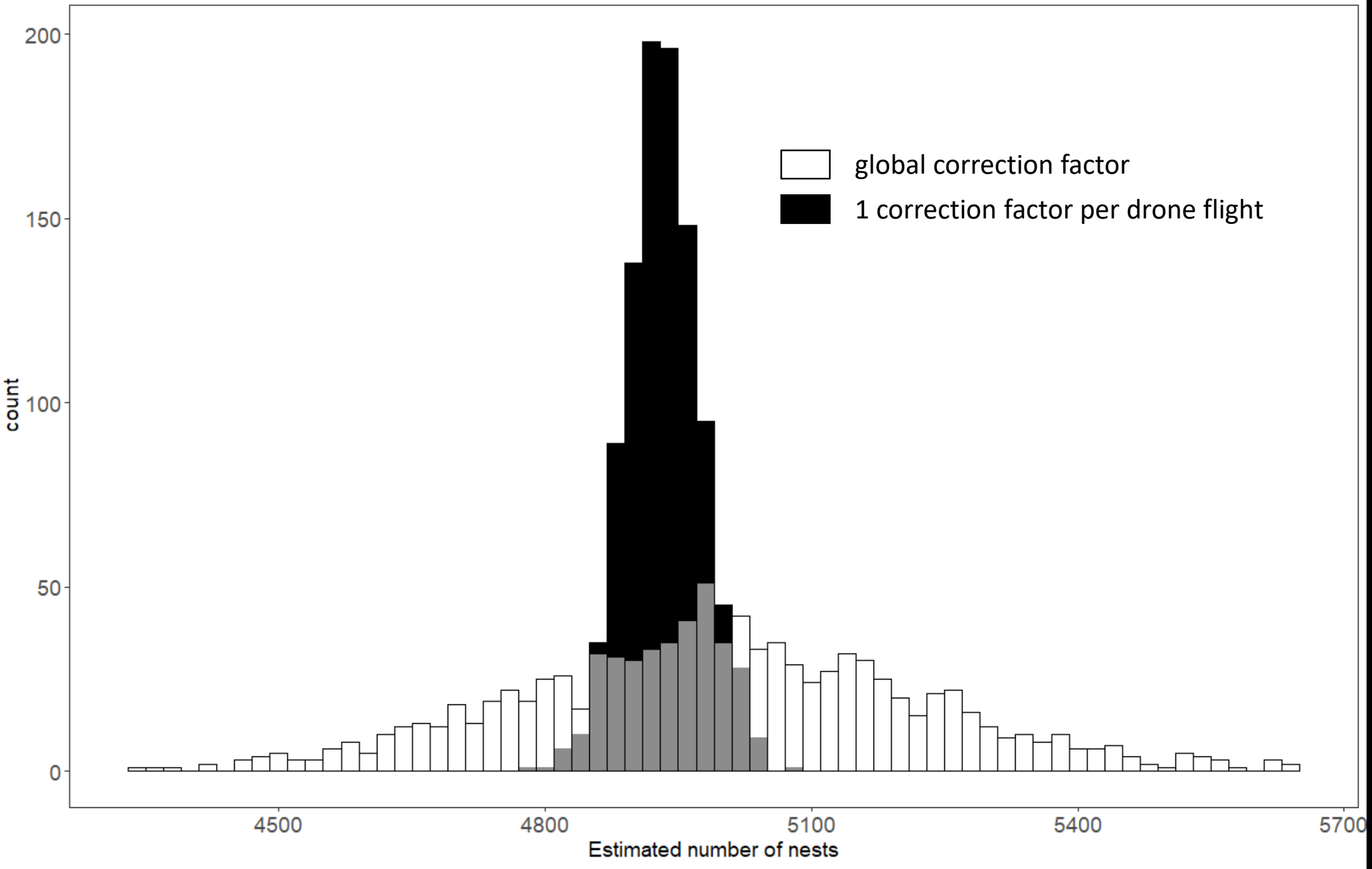

whole island nest count


526
500
400
300
106
cks
trolabe Point


Carnley Harbour
albatross colonies
drone census ~ 9%
0
1
2
3
4 km


nest identified from drone photos
loafing bird identified from drone photos
nests with eggs identified on the ground
Nests erroneously identified from drone photos
0
25
50 m

Date	Where	Birds counted from drone	Nests from ground counts	Ratio drone counts:nests
17/01/2023	Upper Study Area	26	17	1.53
18/01/2023	Lower Study Area	170	127	1.34
24/01/2023	Rhys's Ridge	12	10	1.20
28/01/2023	Fly Square	169	116	1.46
30/01/2023	West of Study Area	51	42	1.21

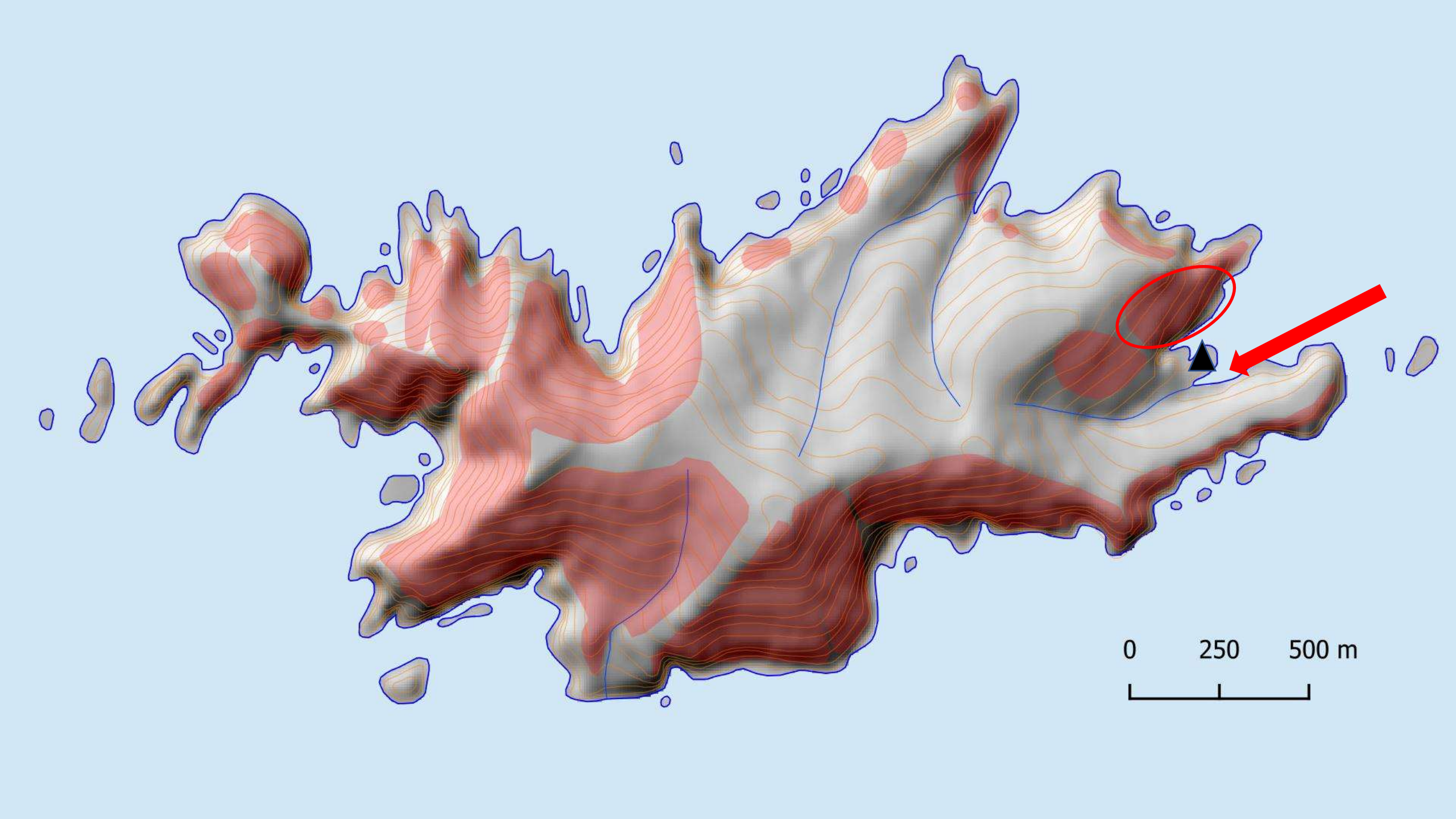

global correction factor
1 correction factor per drone flight
count
200
150
100
50
0
4500
4800
5100
5400
5700
Estimated number of nests

Method	Person weeks on island
Ground count at 25m	30
Ground count at 25m and drone (60:40)	30
Drone count	20
Ground counting using 1997 techniques	20

Without a boat

Method	Person weeks on island
Ground count at 25m	~~30~~ 40
Ground count at 25m and drone (60:40)	~~30~~ 40
Drone count	~~20~~ 30
Ground counting using 1997 techniques	~~20~~ 30


Enderby Island
Port Ross
Disappointment Island
Carnley Harbour
Adams Island
0 2.5 5 km


0
250
500 m

Survival

- Survival 2015-2022 0.89 (95%CI 0.86– 0.91)
- Survival 2015-2023 0.92 (95%CI 0.90– 0.93)

10 cameras in Feb 2022

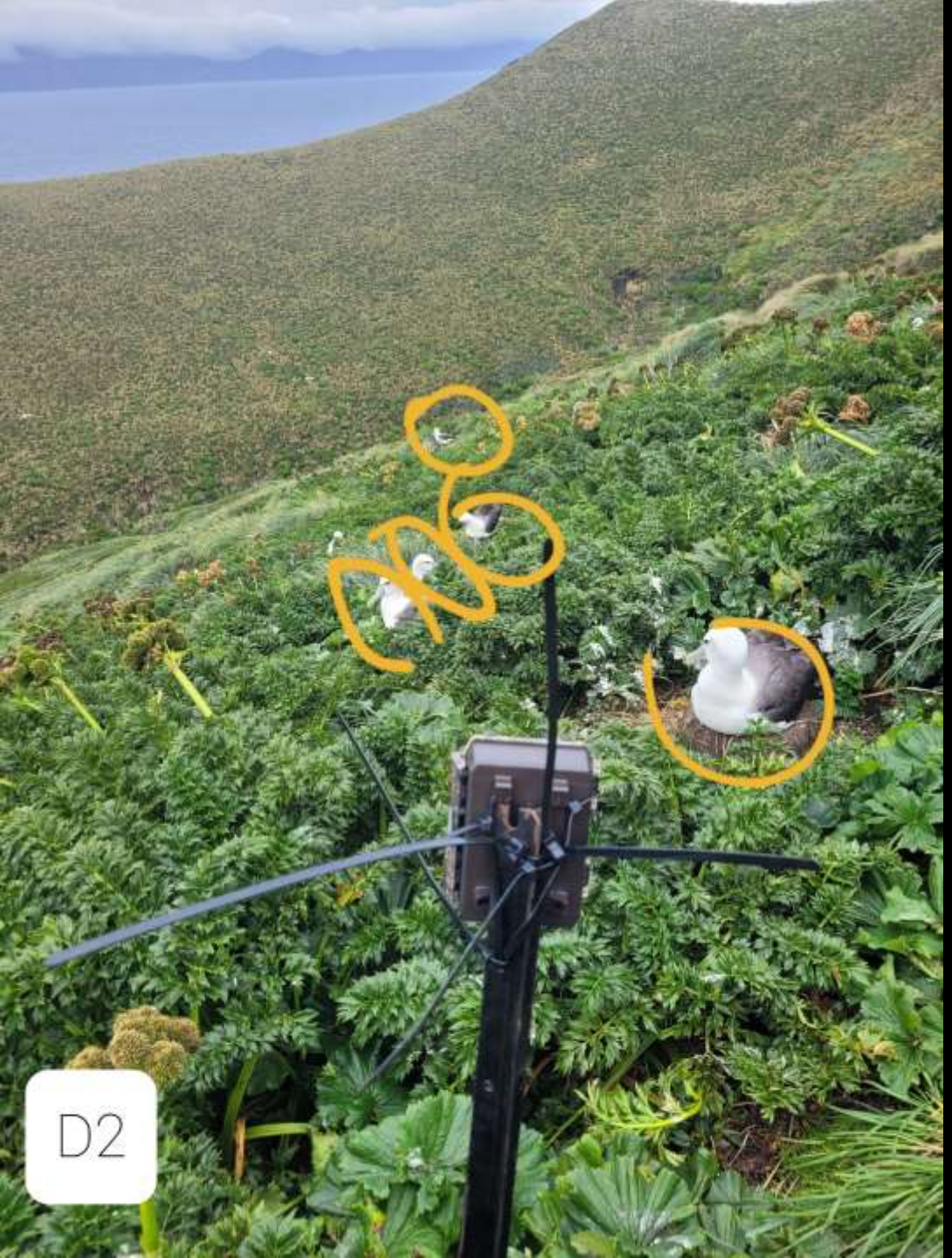
7 still going Feb 2023

The best camera recorded outcome of 10 nests

Provided information on timing of
end of chick guard- stage


Breeding success


fledging date



Most cameras didn’t end up capturing many nests

D2 started well

But camera tilted,

and continued to tilt

just 1 nest visible.


just 1 chick in view
0002 031F -00℃ 17/06/2022


fledged
0002 031F -00℃ 17/06/2022

At worst,

no birds left in view by October 2022

to capture the start of the
2023 nesting season

View going

no birds left in view by October 2022

to capture the start of the 2023 nesting season

Cameras enabled:

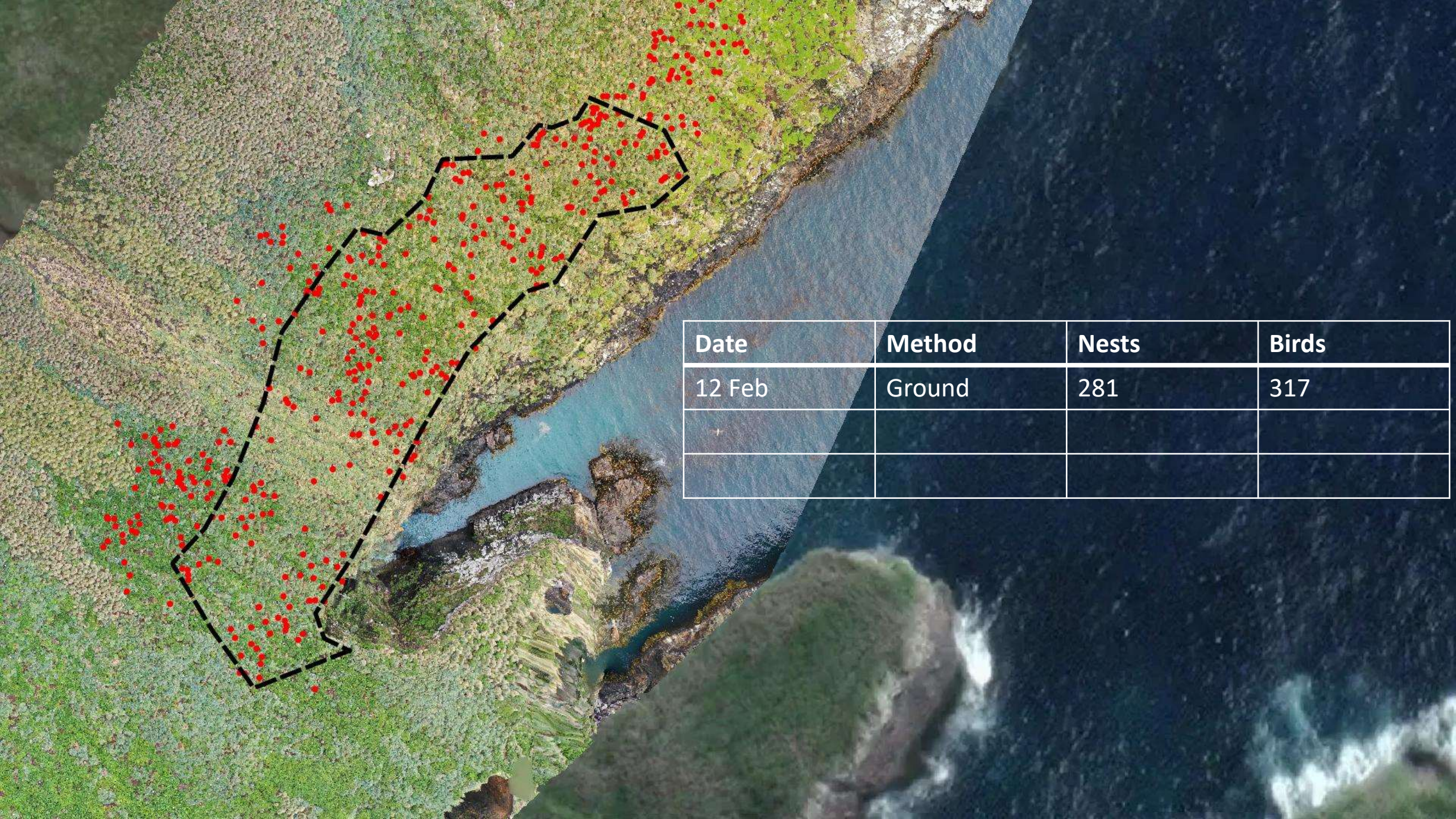
chick success 66% (33 nests)
egg success 100% (4 nests)

Mean date of:

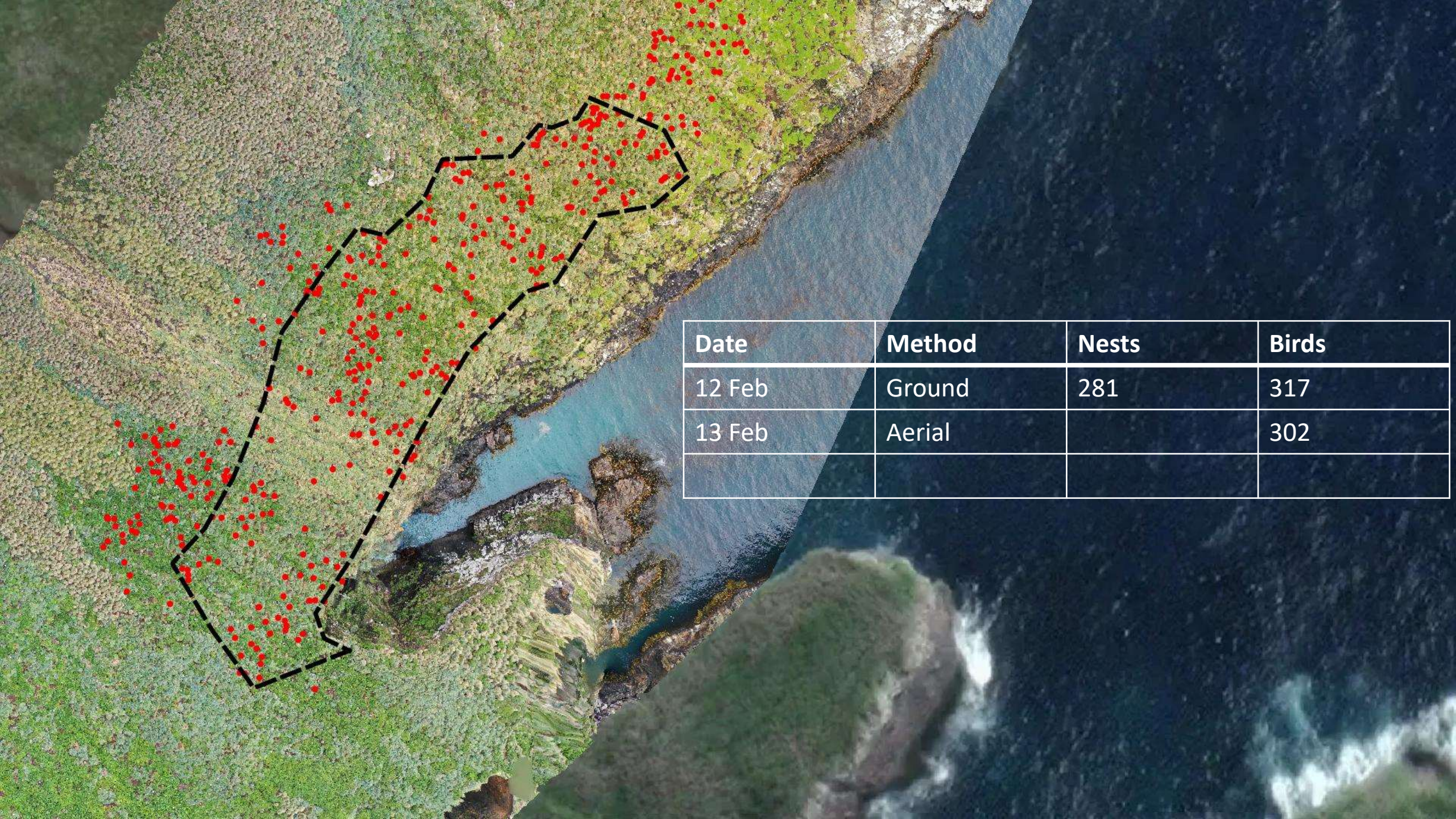
- End of guard - 24 February
- Fledge date - 26 July
- Arrival for new breeding season -10 October


whole island count

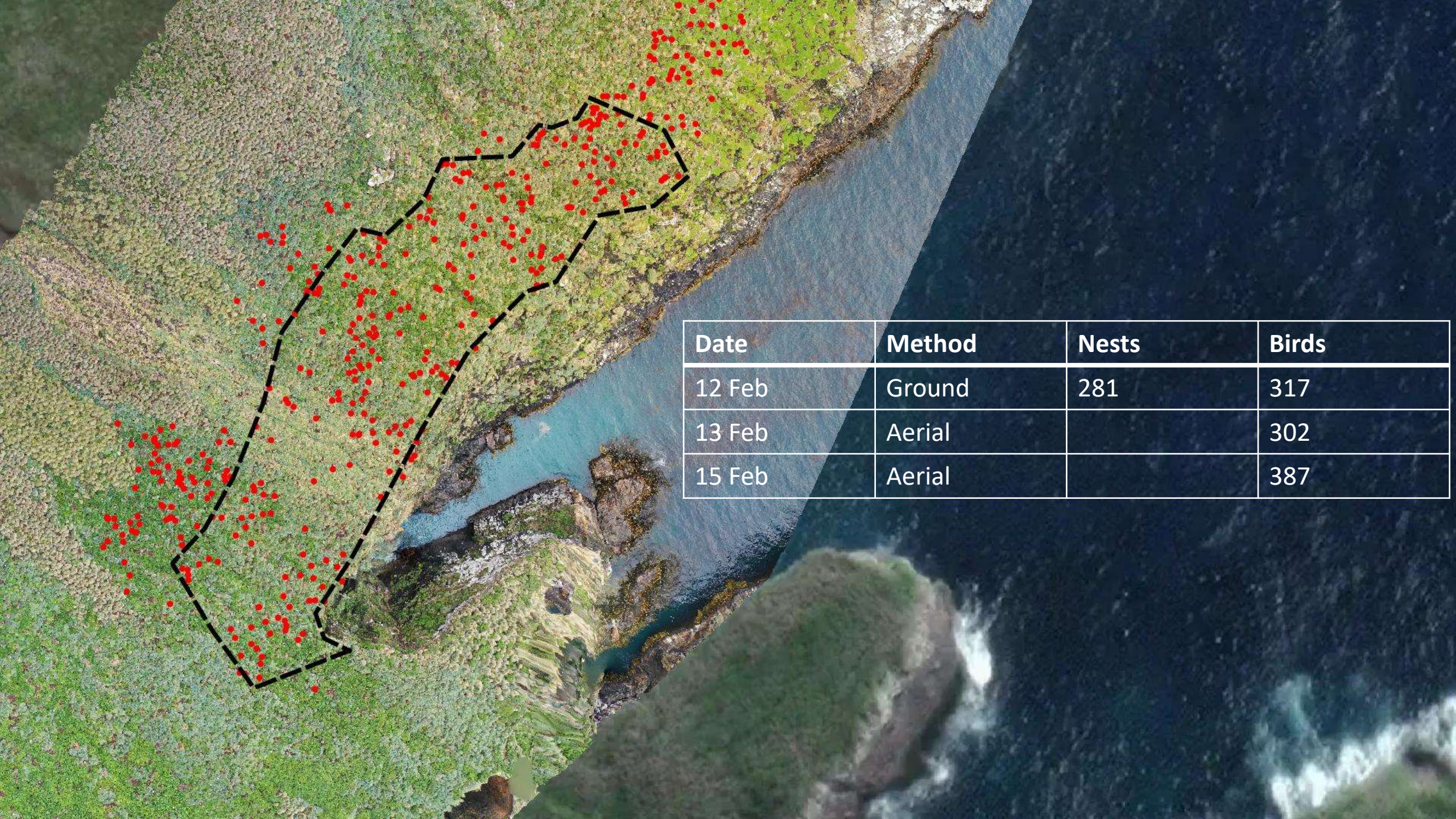

60m



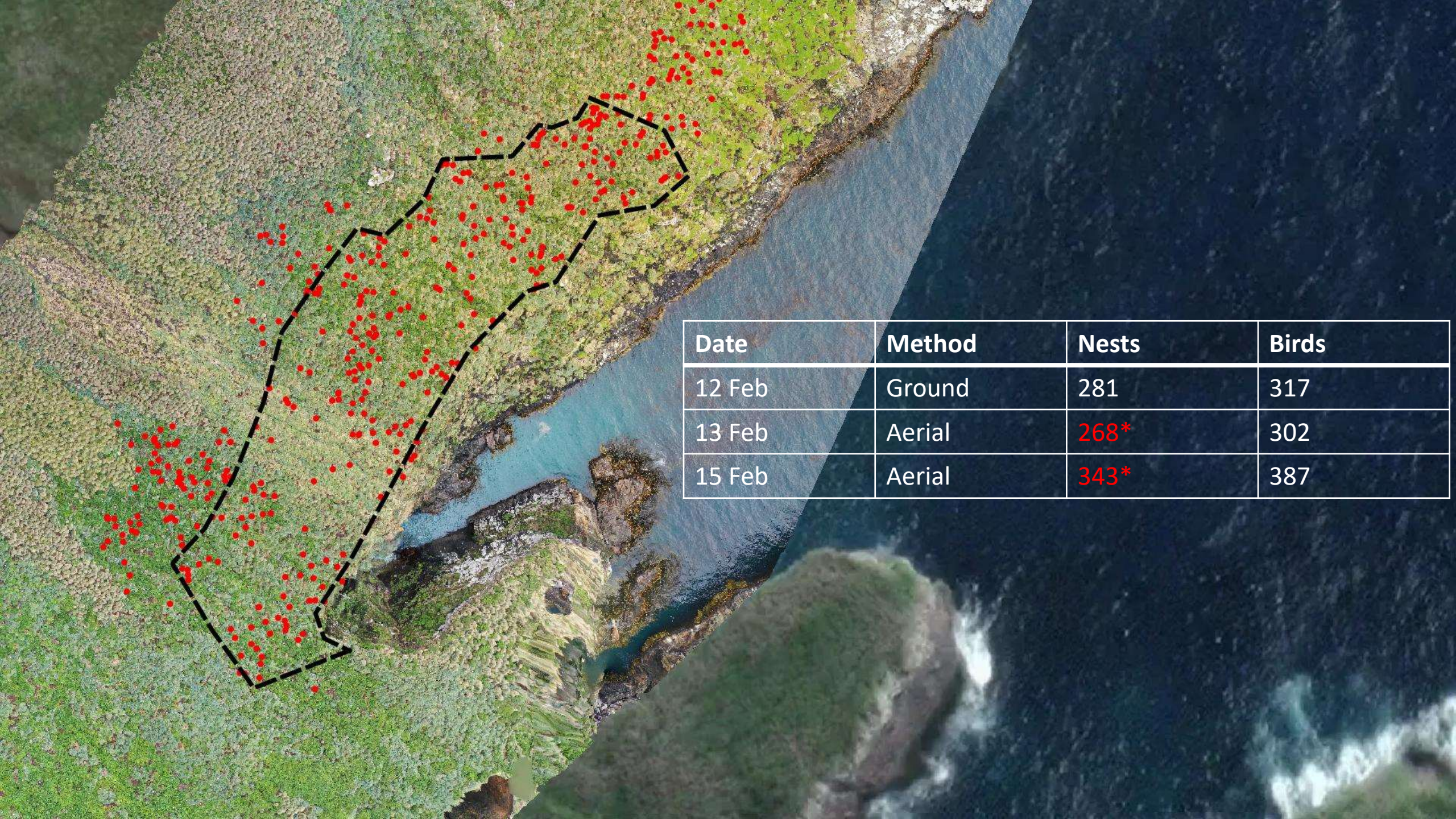
Date	Method	Nests	Birds
12 Feb	Ground	281	317



Date	Method	Nests	Birds
12 Feb	Ground	281	317
13 Feb	Aerial		302



Date	Method	Nests	Birds
12 Feb	Ground	281	317
13 Feb	Aerial		302
15 Feb	Aerial		387



Date	Method	Nests	Birds
12 Feb	Ground	281	317
13 Feb	Aerial	268*	302
15 Feb	Aerial	343*	387

Camera’s, drone trials, bird health checks and applying GLS have come at a cost

No new birds banded in 2020, 2021 (no trip) 2022 and only 24 in 2023

Small numbers of banded birds to re-sight jeopardizes the essential information on survival