Salvin’s albatross nest cameras

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PARKER CONSERVATION

June 2021

Bounty Islands

179°01 E

47°45 S

Spider Isl
60
Seal Rock
Skua Rock
20
Proclamation Isl
45
Tunnel Isl
41
Depot Isl
50
30
Lion Isl
26
45
Ranfurly Isl
50
55
Penguin Isl
Ruatara Isl

Funnel Isl
73
39
Prion Isl
Coronet Isl
36
Castle Isl

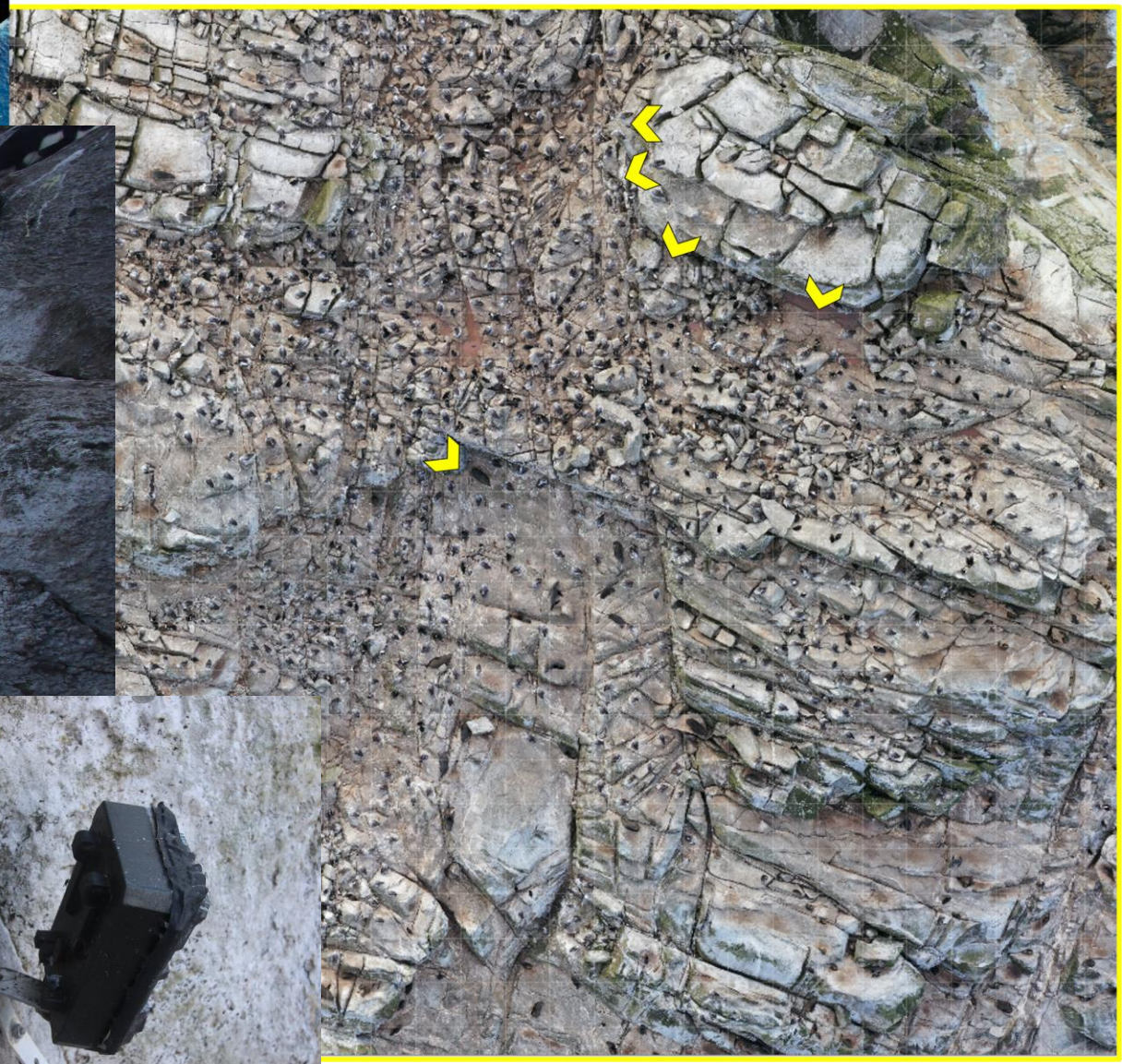
North Rock
30
Con Isl
Molly Cap
70

0 250 500 m

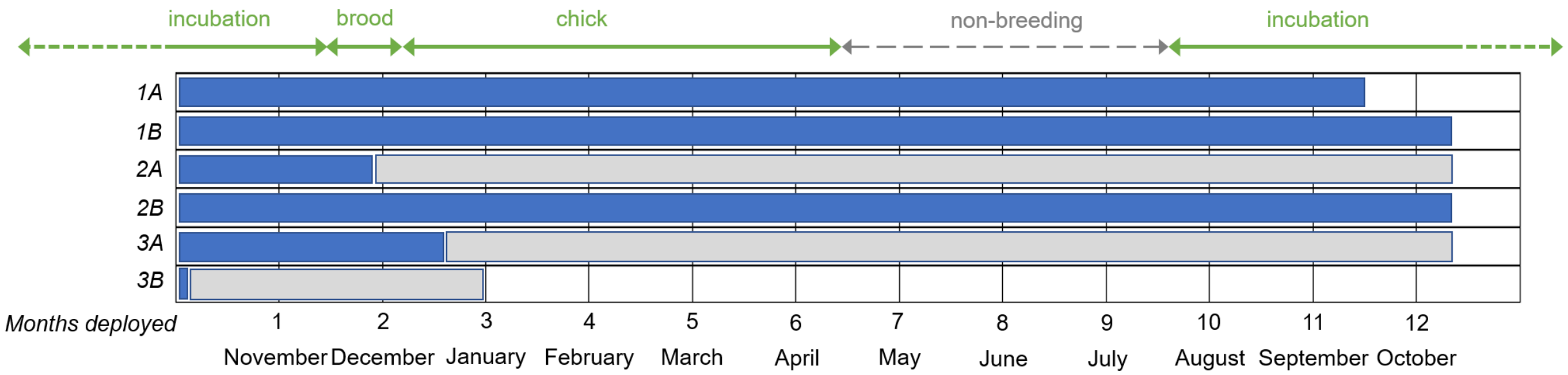
Scope

Phenology of Salvin's albatross

- Fledging dates, adult departure and return
- Nest success
- Timing/outcome from tracking data?



Analyses



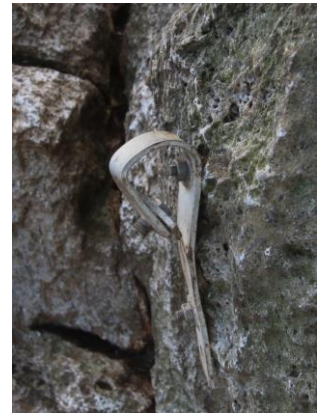
368 d

18,291 images for Salvin's

74 nests visible at deploy

40 nests (3 cams) followed to end breeding

50 new 2019–20 nests



ENDURO
043F 06℃ 21/10/2018 17:43:58

end of brood-guard (date chick first left unattended)

fledging (date chick departed nest)

failure

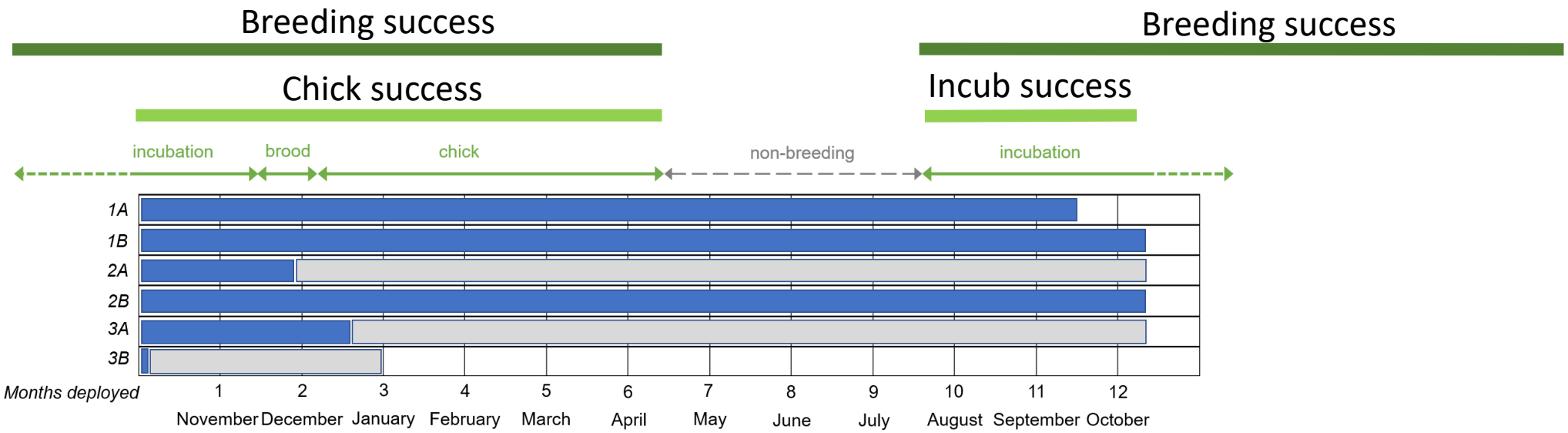
last colony departure (date last adult and/or fledgling visible at the end of the season)

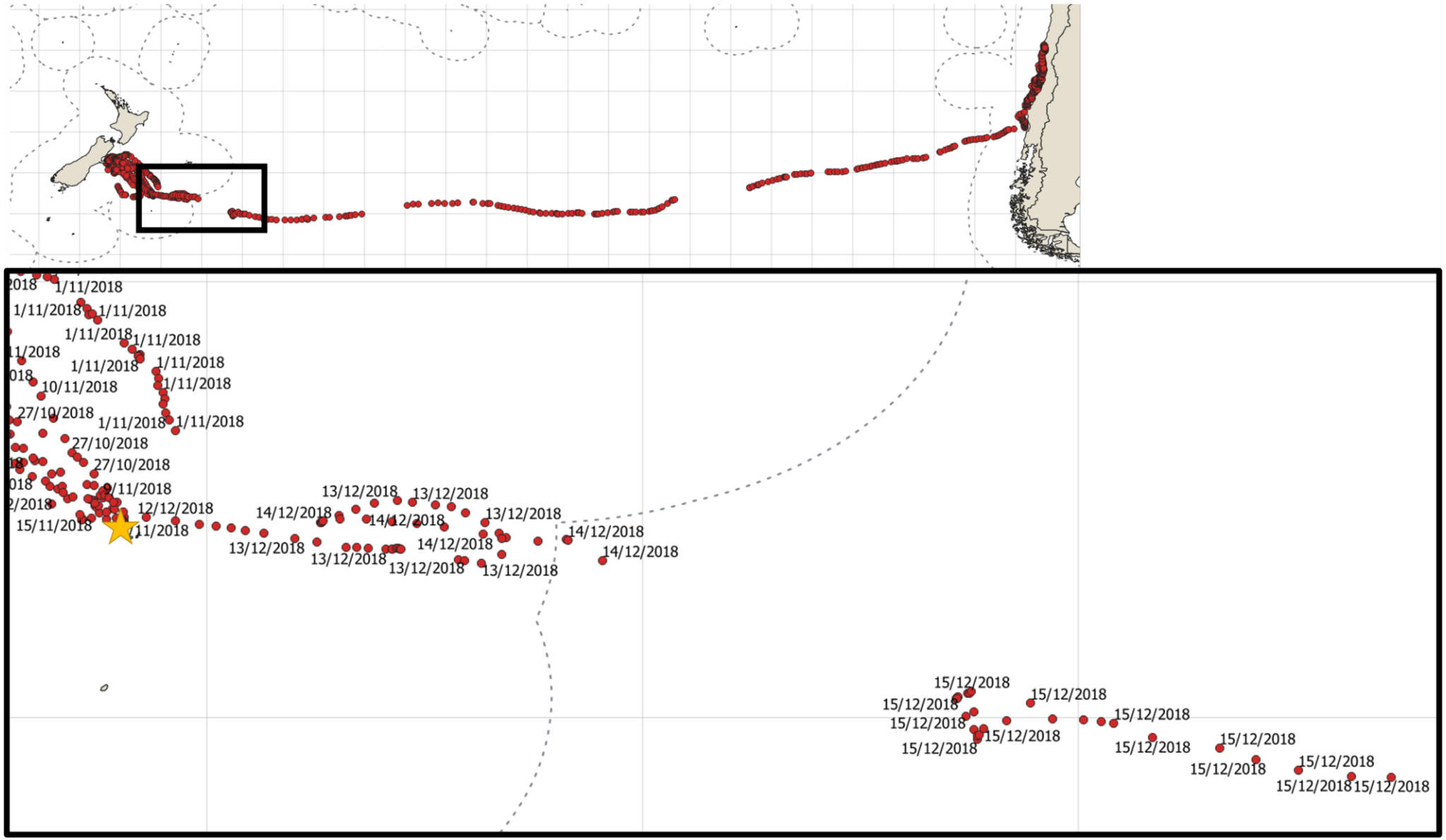
first colony return (date first bird seen back in colony)

colony reoccupied (date adults staying in colony)

Hatch = end brood - mean 27 d brood-guard

Lay = end brood - mean 73 d incubation and mean 27 d brood-guard


Breeding success
Breeding success
Chick success
Incub success
incubation
brood
chick
non-breeding
incubation
1A
1B
2A
2B
3A
3B
Months deployed
1
2
3
4
5
6
7
8
9
10
11
12
November
December
January
February
March
April
May
June
July
August
September
October


1/11/2018
1/11/2018
1/11/2018
1/11/2018
1/11/2018
1/11/2018
1/11/2018
10/11/2018
27/10/2018
1/11/2018
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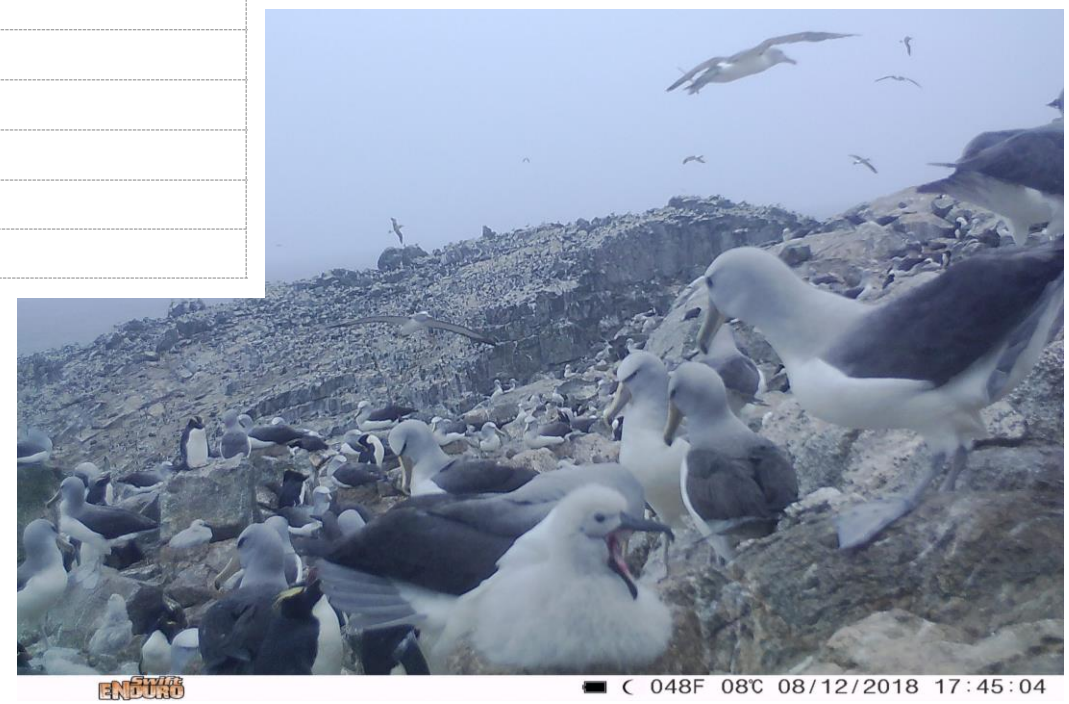
15/12/2018
15/12/2018
15/12/2018

Results

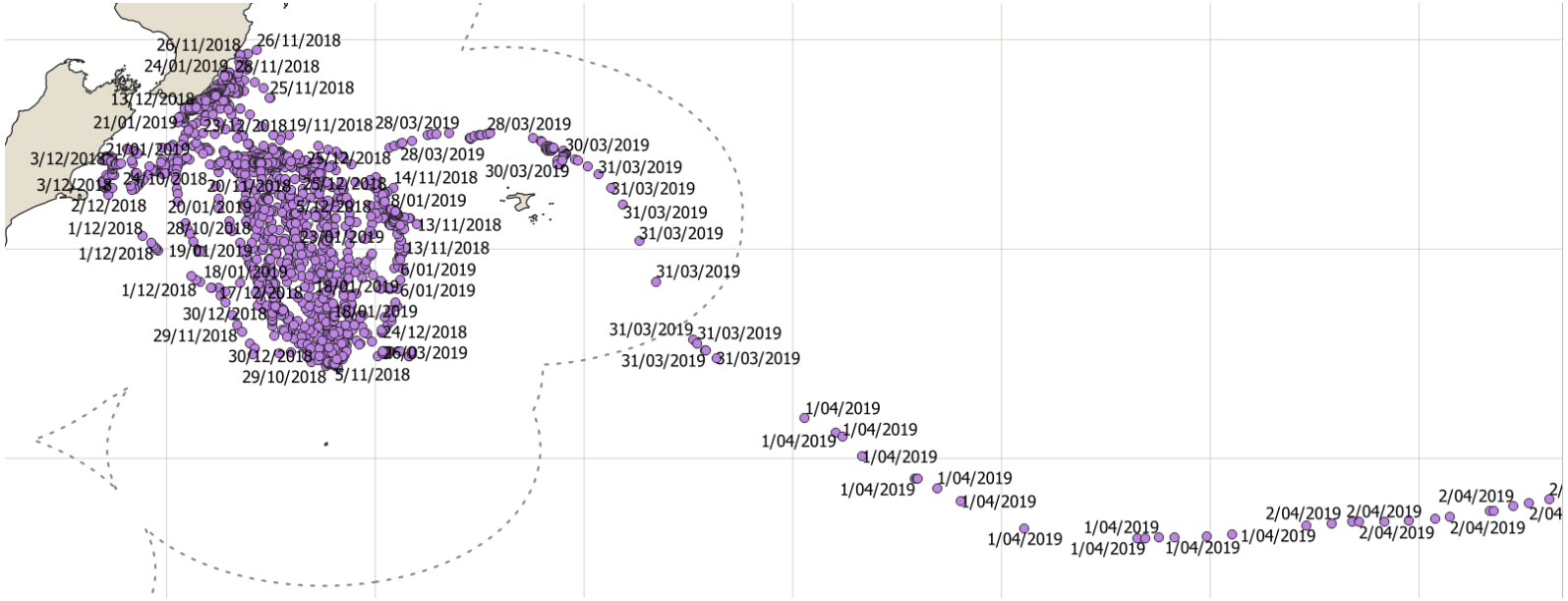
days wintering, colony empty	86.3
first ad return (on ground, even if brief)	4 Jul
colony return dates (>2 full-time)	19 Jul
estimated lay (mean 73 d incubation)	28 Aug
estimated hatch (mean 27 d brood)	9 Nov
brood end date average	6 Dec (n=25)
fledging dates average	7 Apr (n=16)
fledging date range	27 Mar–16 Apr
last date bird present in colony	20 Apr

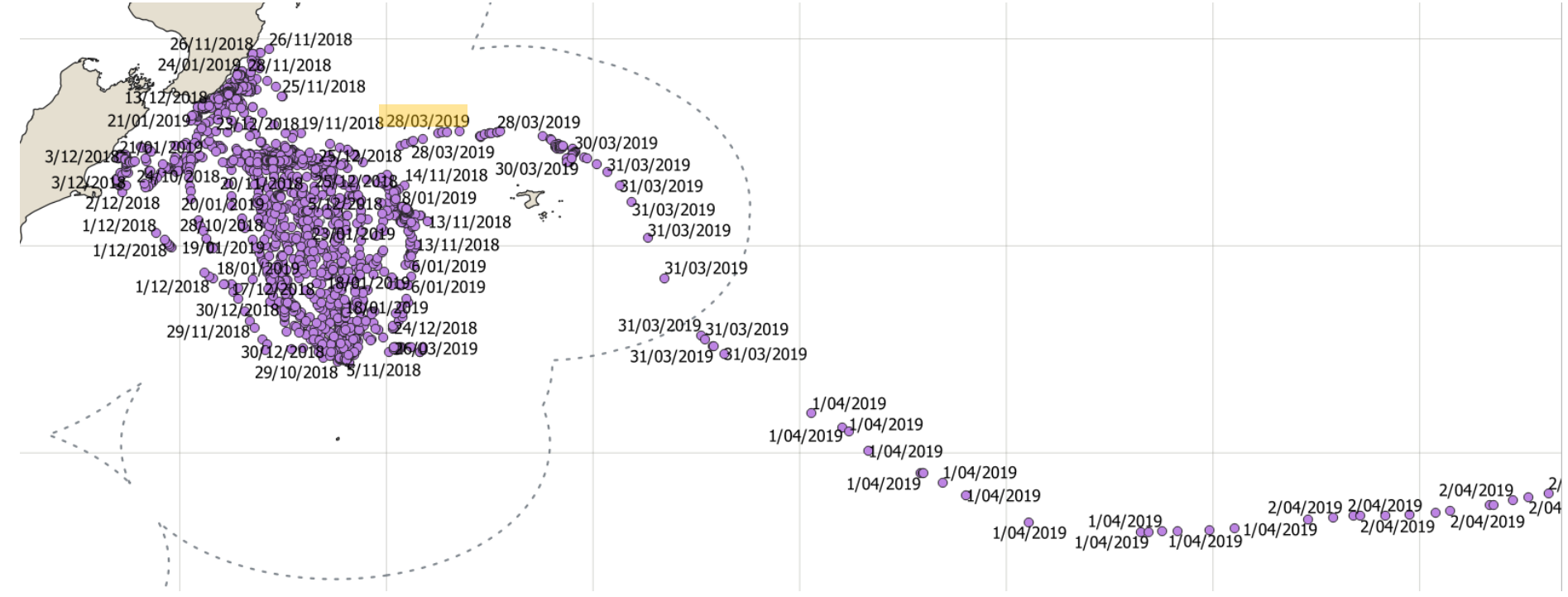
N=70 nests
(40 visible
whole time)

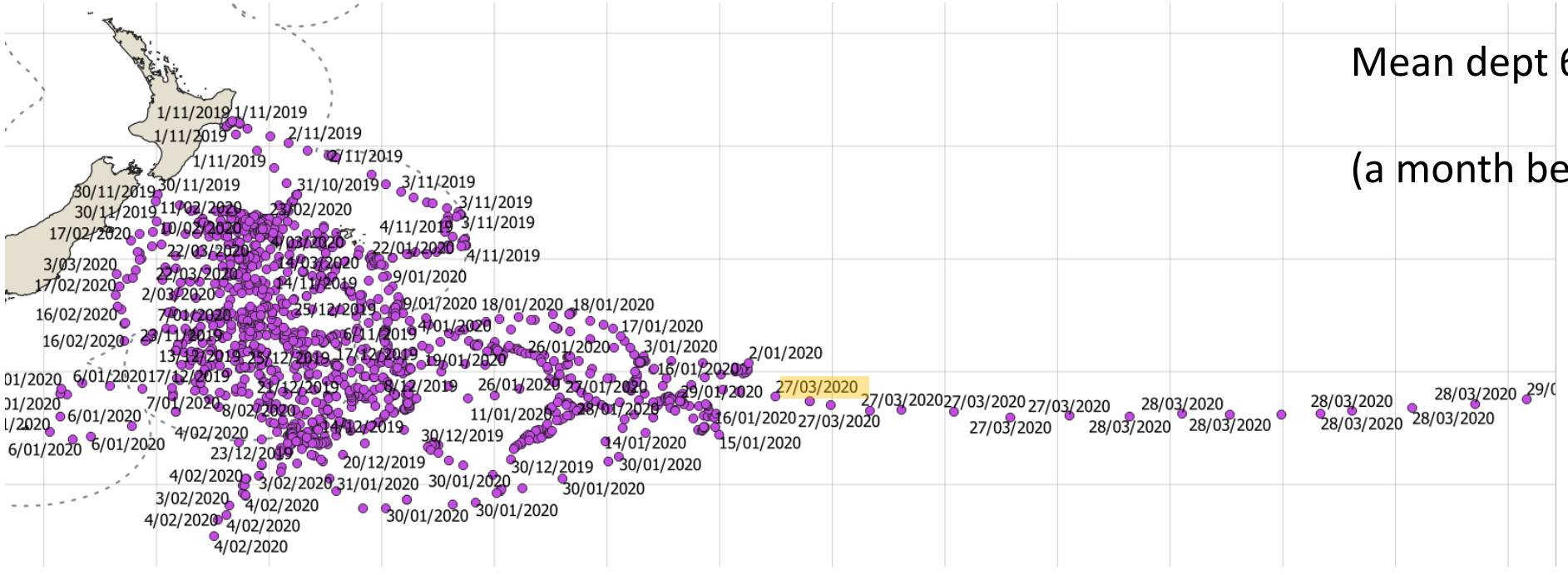
	TOTALS all nests	TOTALS just cams with whole-season data
unique nests viewed at deploy	74	40
n fledged/near-fledged	na	18
hatching and chick success	na	0.45
fail dates (average, incub–fledge 18/19)	25 Nov (n=28)	
nests start 19/20 season	50	50
nests with egg at end cam life (19/20)	na	40
Incubation success	na	0.80
fail dates (average, lay–mid incub 19/20)	21 Sep (n=9)	



Can phenology and success data be drawn from tracking datasets via migration dates?

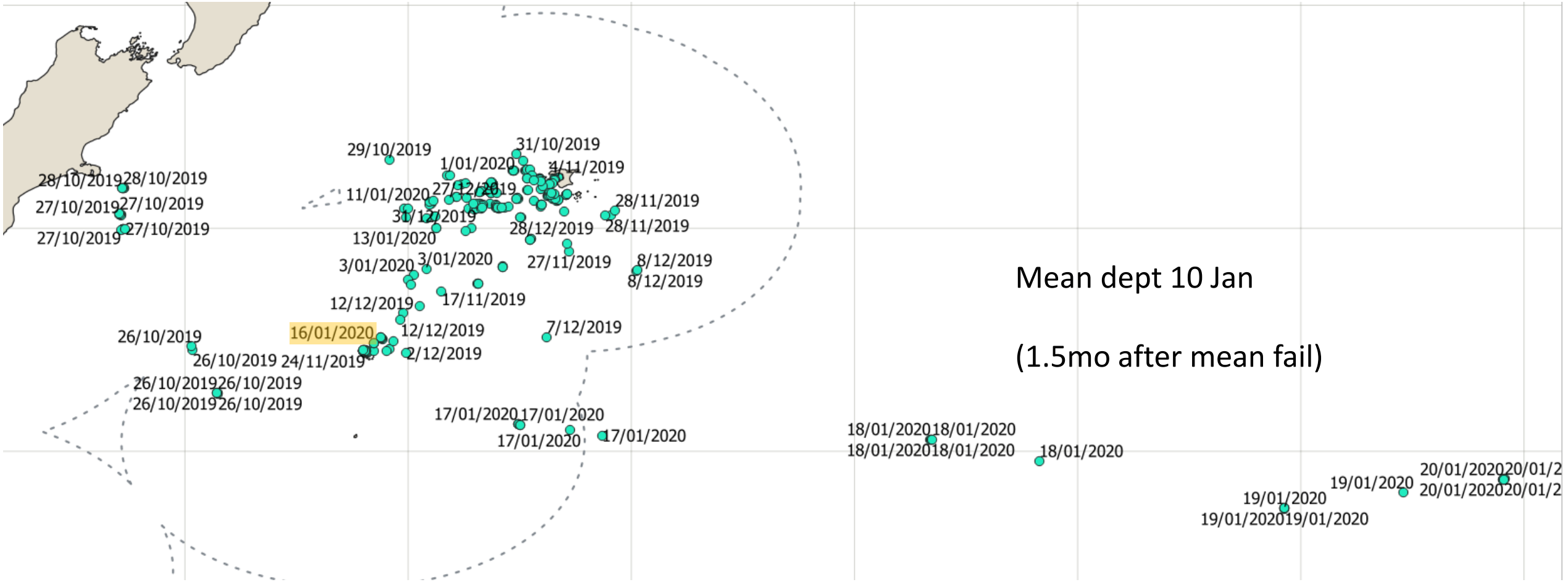






Mean dept 6 March

(a month before fledge)


29/10/2019
31/10/2019
1/01/2020
4/11/2019
28/10/2019
28/10/2019
11/01/2020
27/12/2019
28/11/2019
27/10/2019
27/10/2019
31/12/2019
28/12/2019
28/11/2019
27/10/2019
27/10/2019
13/01/2020
3/01/2020
3/01/2020
27/11/2019
8/12/2019
8/12/2019
12/12/2019
17/11/2019
16/01/2020
12/12/2019
7/12/2019
26/10/2019
2/12/2019
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24/11/2019
26/10/2019
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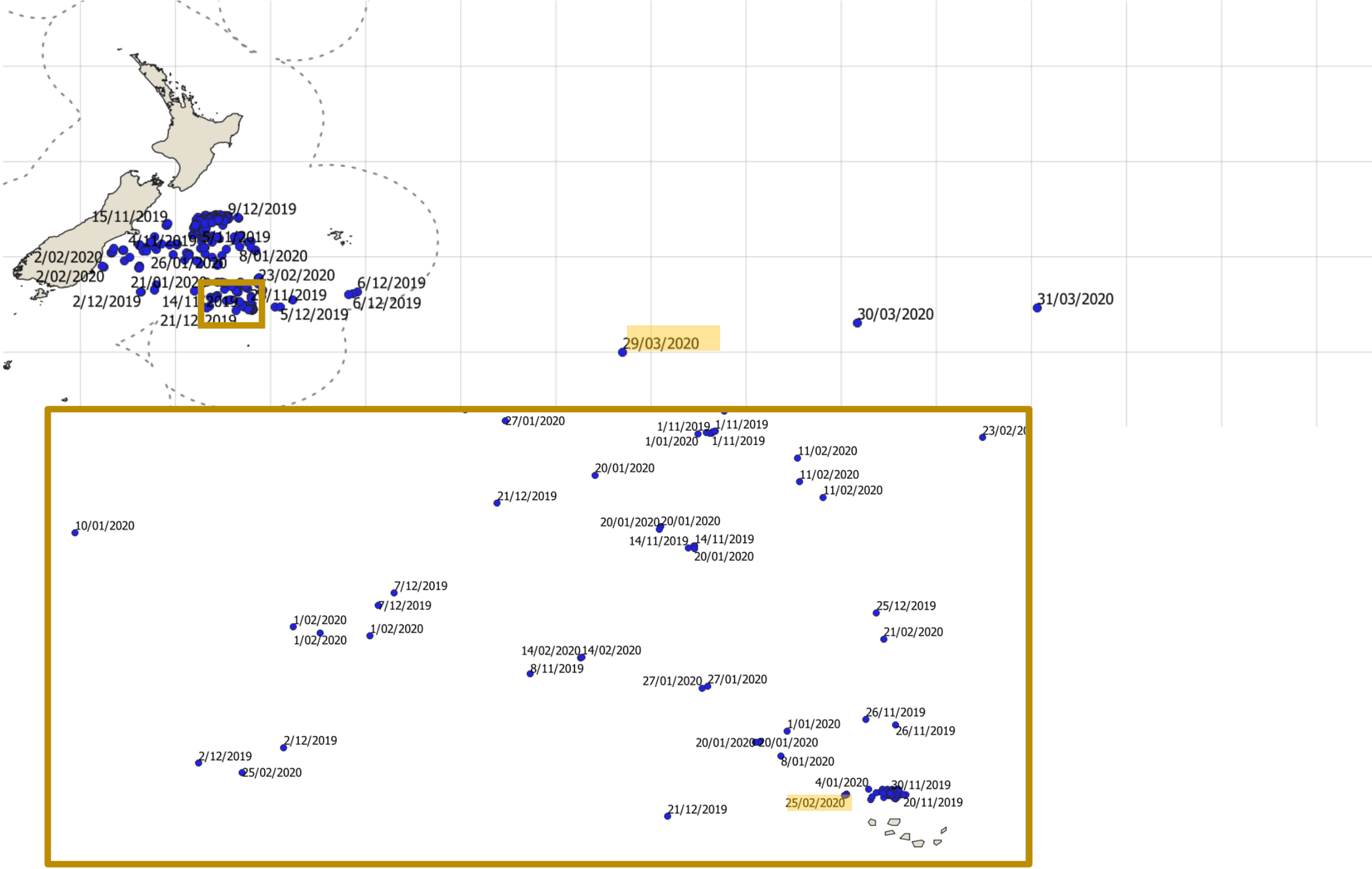
19/01/2020
19/01/2020
Mean dept 10 Jan
(1.5mo after mean fail)


9/12/2019
15/11/2019
2/02/2020
2/02/2020
26/01/2020
8/01/2020
23/02/2020
6/12/2019
6/12/2019
2/12/2019
5/12/2019
30/03/2020
31/03/2020
29/03/2020
27/01/2020
1/11/2019
1/11/2019
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11/02/2020
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21/02/2020
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8/11/2019
27/01/2020
27/01/2020
26/11/2019
1/01/2020
26/11/2019
20/01/2020
20/01/2020
8/01/2020
2/12/2019
2/12/2019
25/02/2020
4/01/2020
30/11/2019
20/11/2019
25/02/2020
21/12/2019

Recommendations

For breeding success, need full breeding season from lay to fledge

- deploy in July with cameras left in place until after April
- OR two deployments, changing batteries and memory without changing the camera field of view (if island visits partway through breeding e.g. October)

Disturbance by fur seals

- Cams mounted under overhanging rock, >2 ft high to prevent passing disturbance
- OR more cameras to counter expected data loss

Acknowledgements

Funding: **DOC**

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