

DATA SUPPLEMENT TO *DOC SCIENCE INTERNAL SERIES 144*

ROYAL ALBATROSS (*DIOMEDEA
EPOMOPHORA*) ON ENDERBY ISLAND,
AUCKLAND ISLANDS

By Simon Childerhouse, Christopher Robertson, Wally Hockly and Nadine Gibbs, 2003.

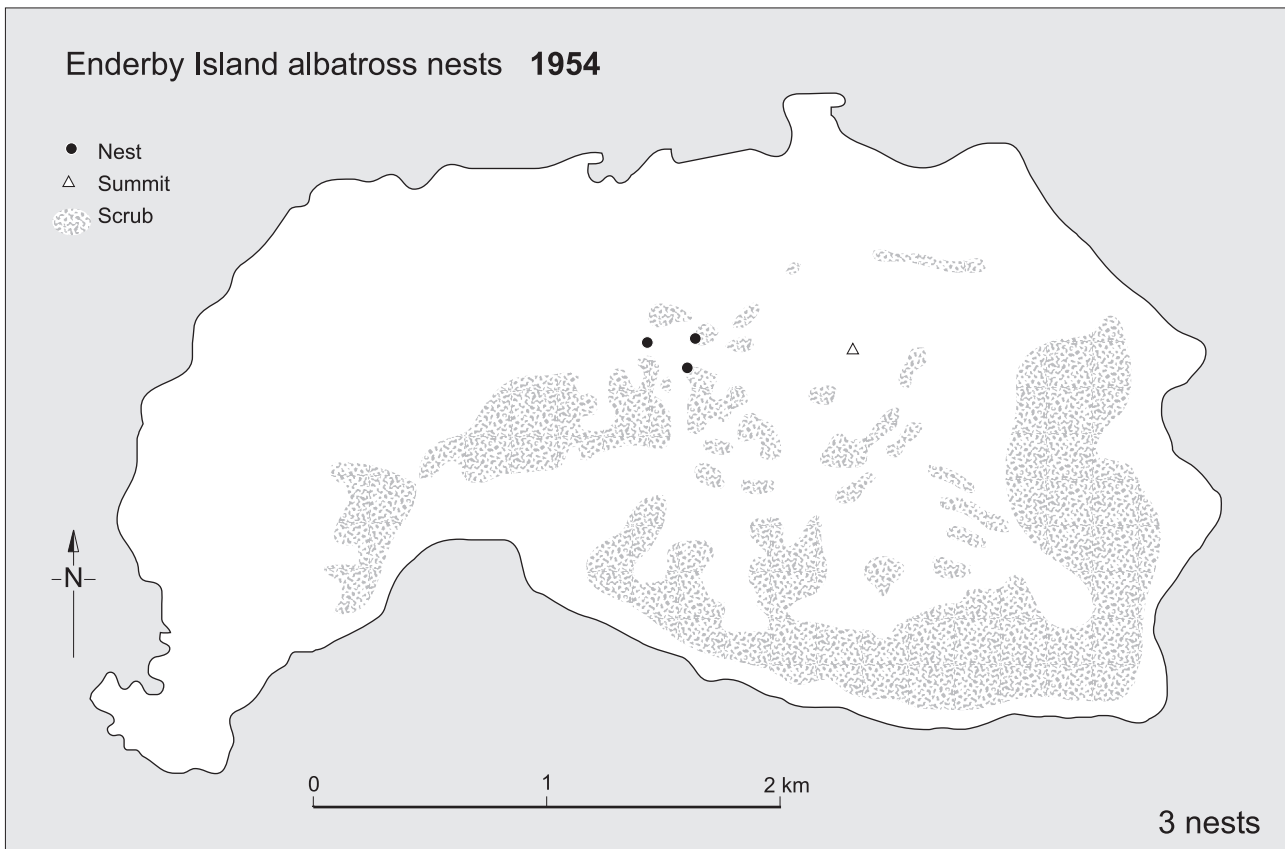
Department of Conservation, Wellington, New Zealand.

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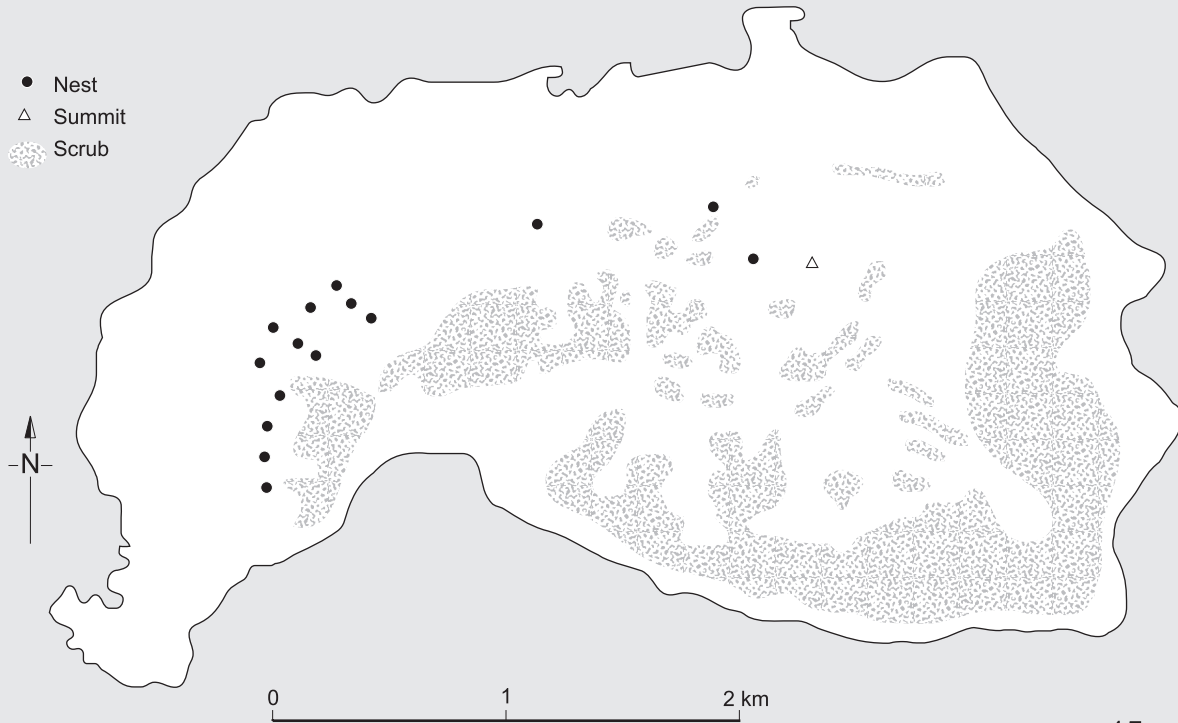
Part 1

Approximate locations of royal albatross nests on Enderby I. 1954–2001



Enderby Island albatross nests 1966

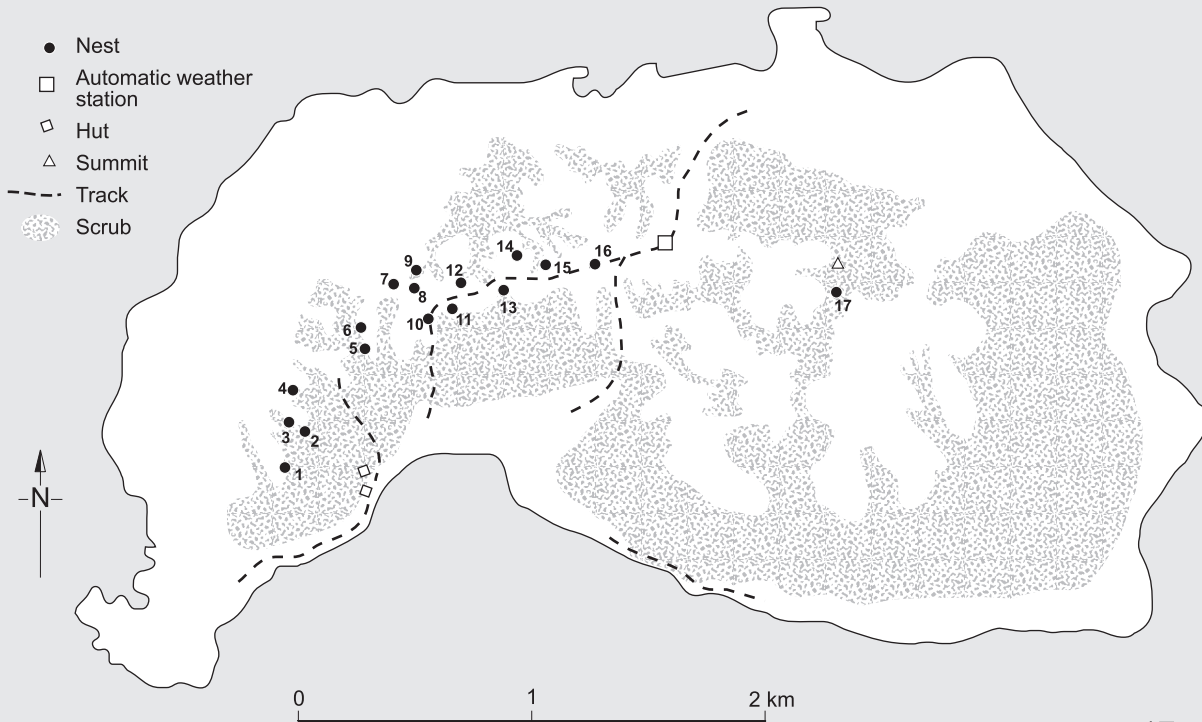
- Nest
- △ Summit
- ▨ Scrub



15 nests

Enderby Island albatross nests 1972

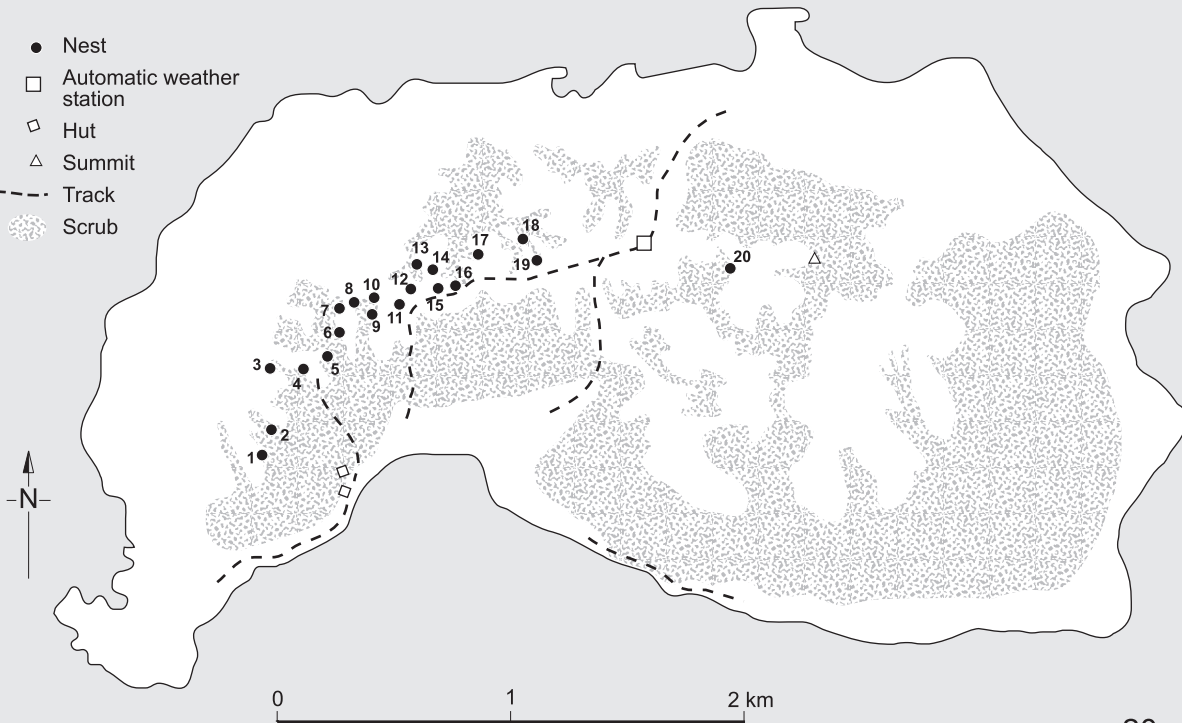
- Nest
- Automatic weather station
- ◇ Hut
- △ Summit
- - - Track
- ▨ Scrub



17 nests

Enderby Island albatross nests 1973

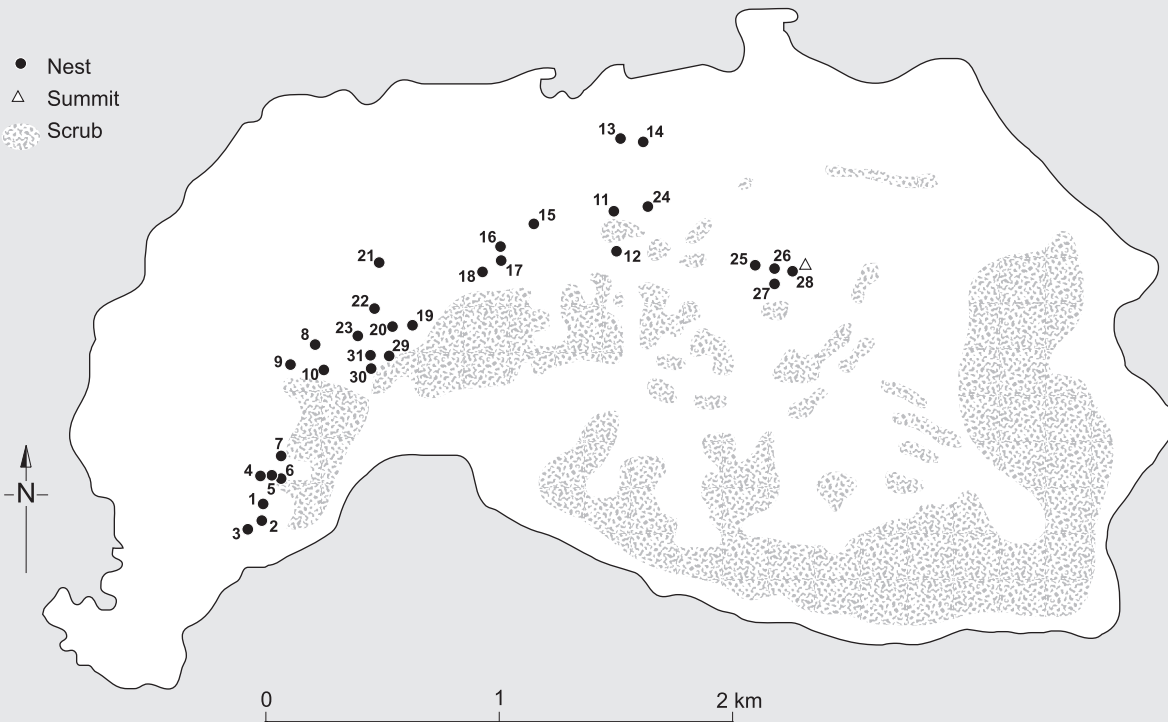
- Nest
- Automatic weather station
- ◇ Hut
- △ Summit
- - - Track
- Scrub



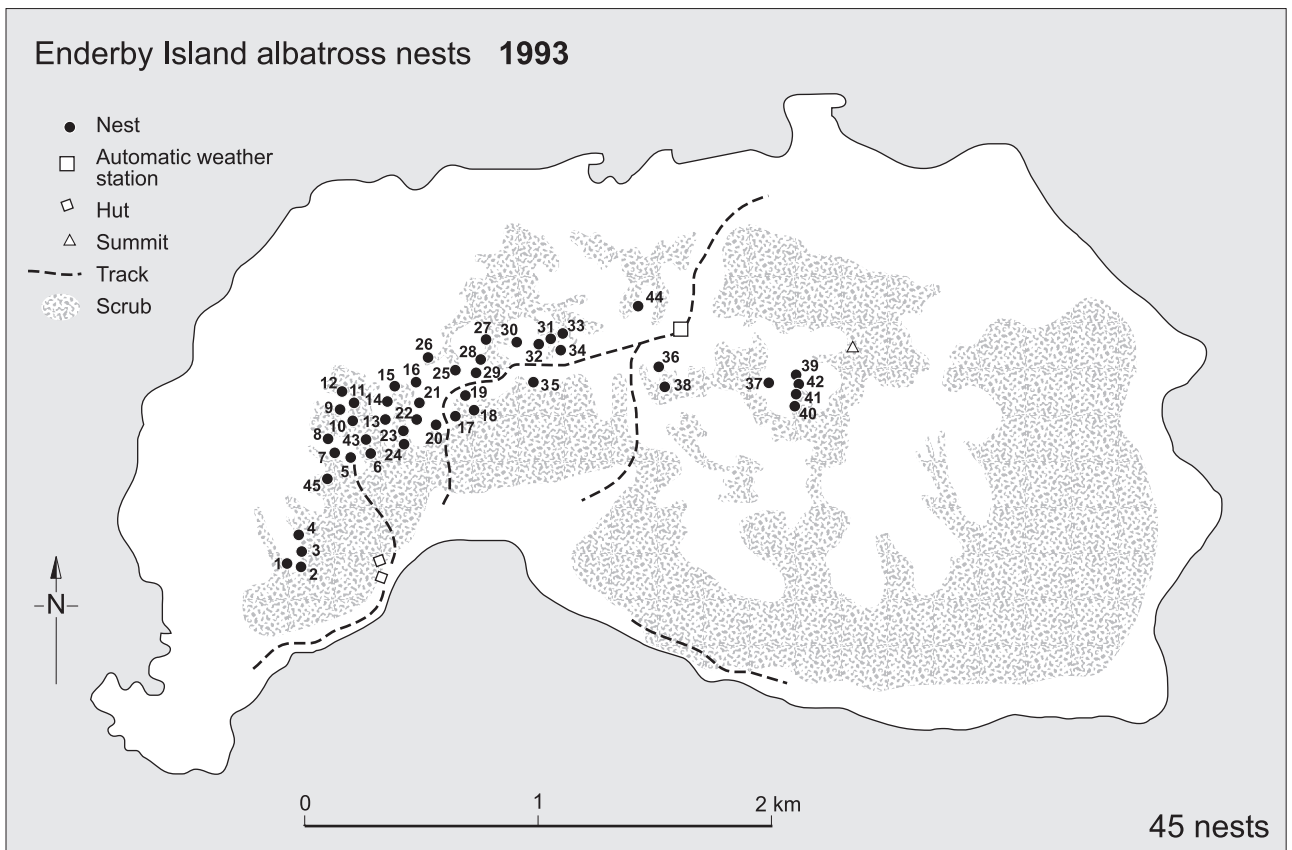
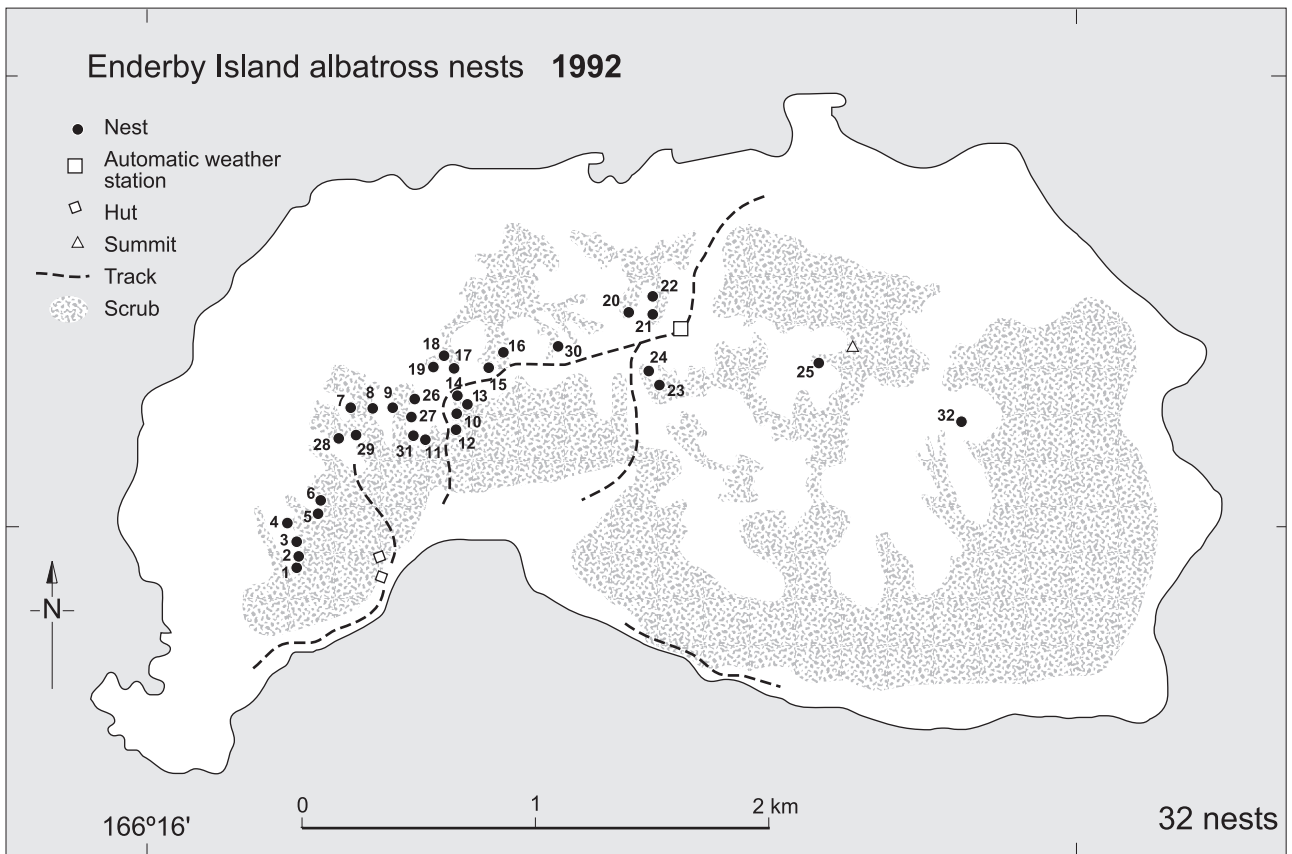
20 nests

Enderby Island albatross nests 1987

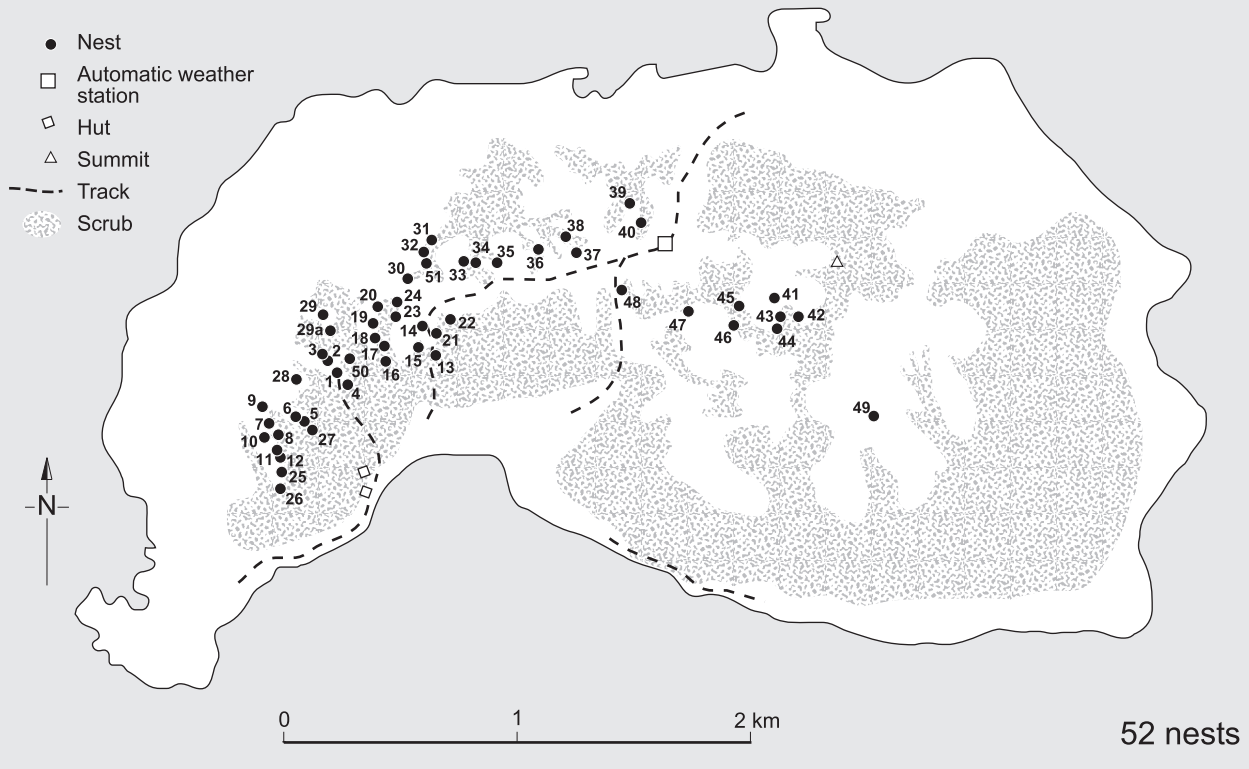
- Nest
- △ Summit
- Scrub



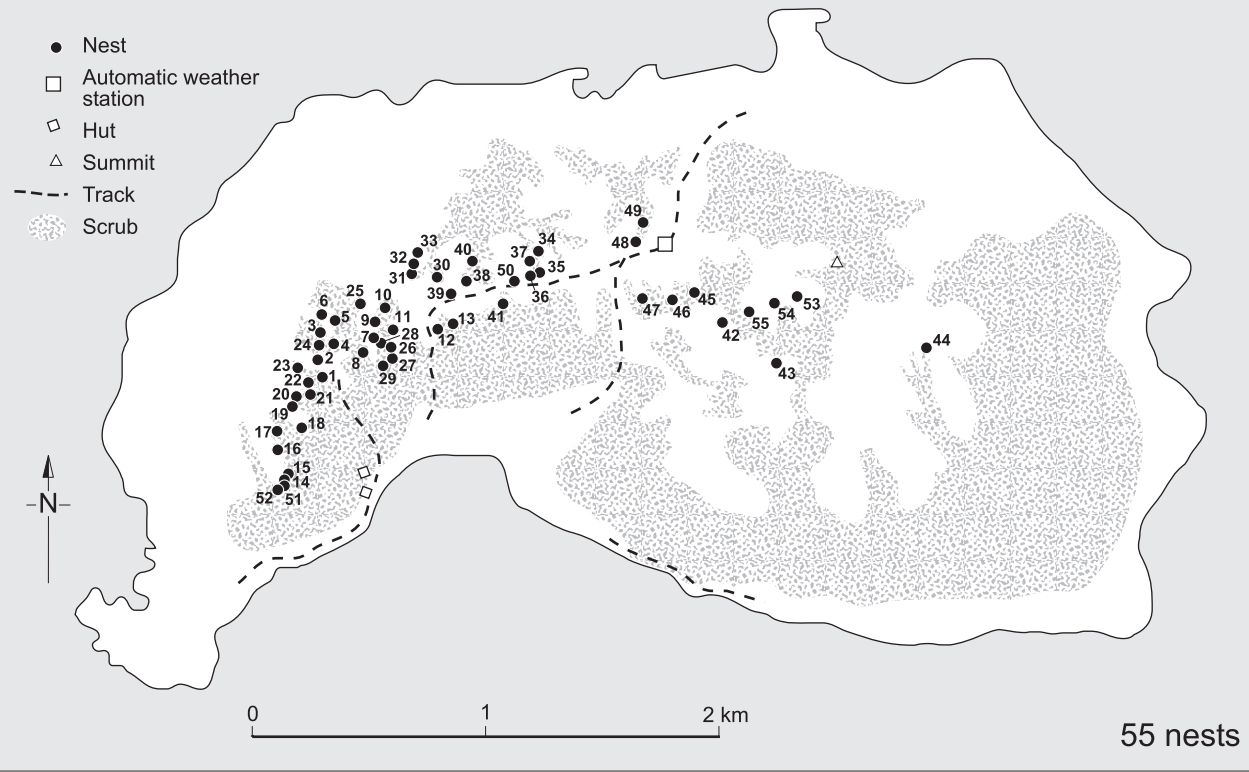
31 nests



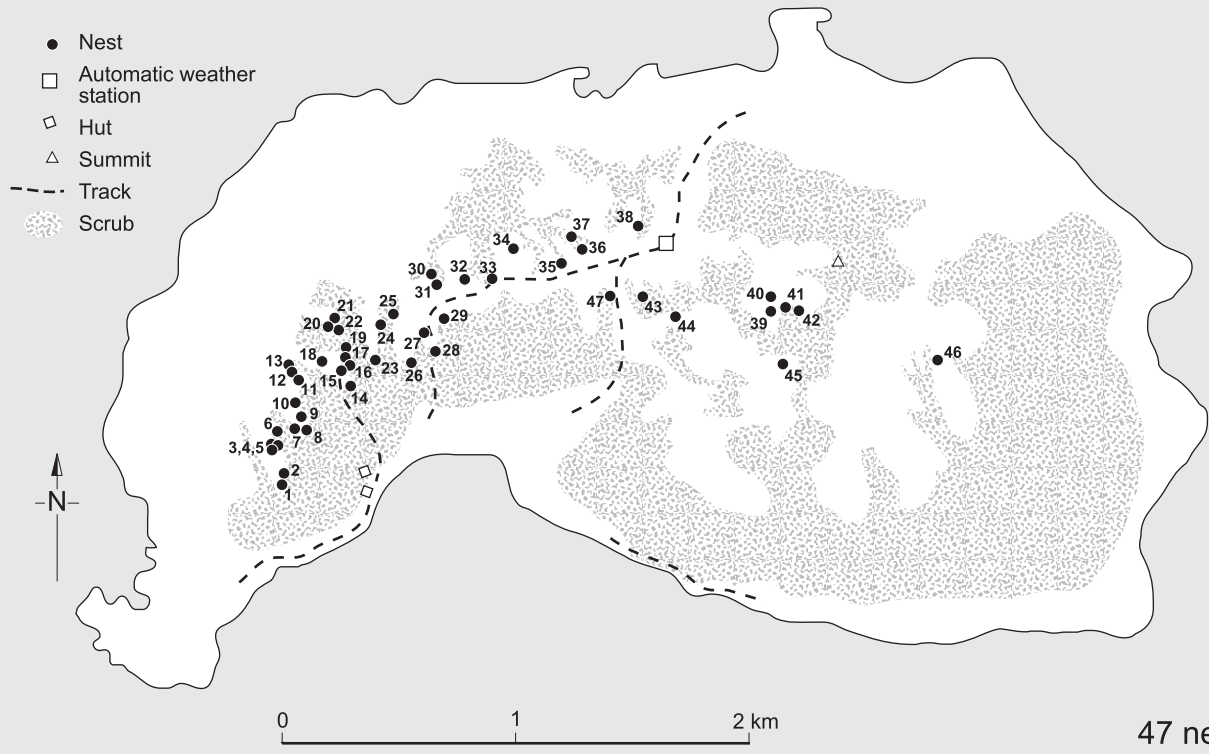
Enderby Island albatross nests 1994



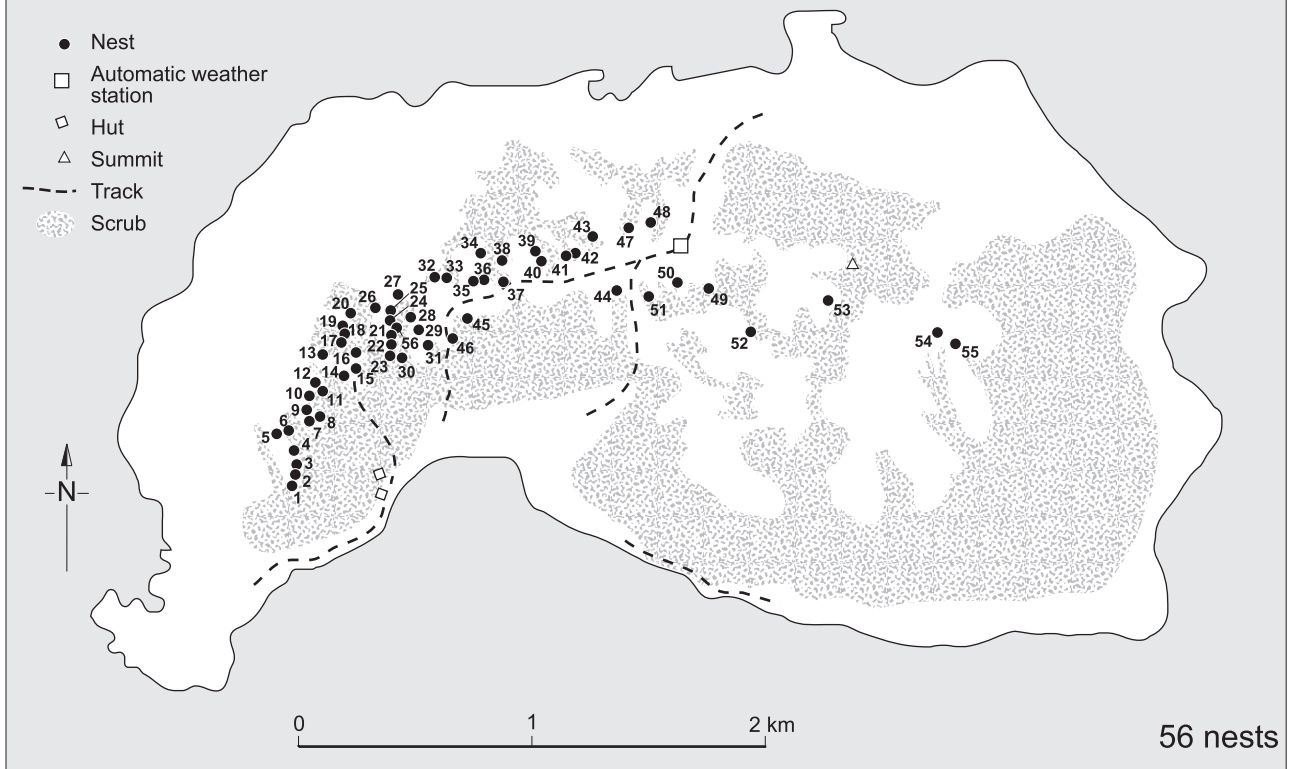
Enderby Island albatross nests 1995



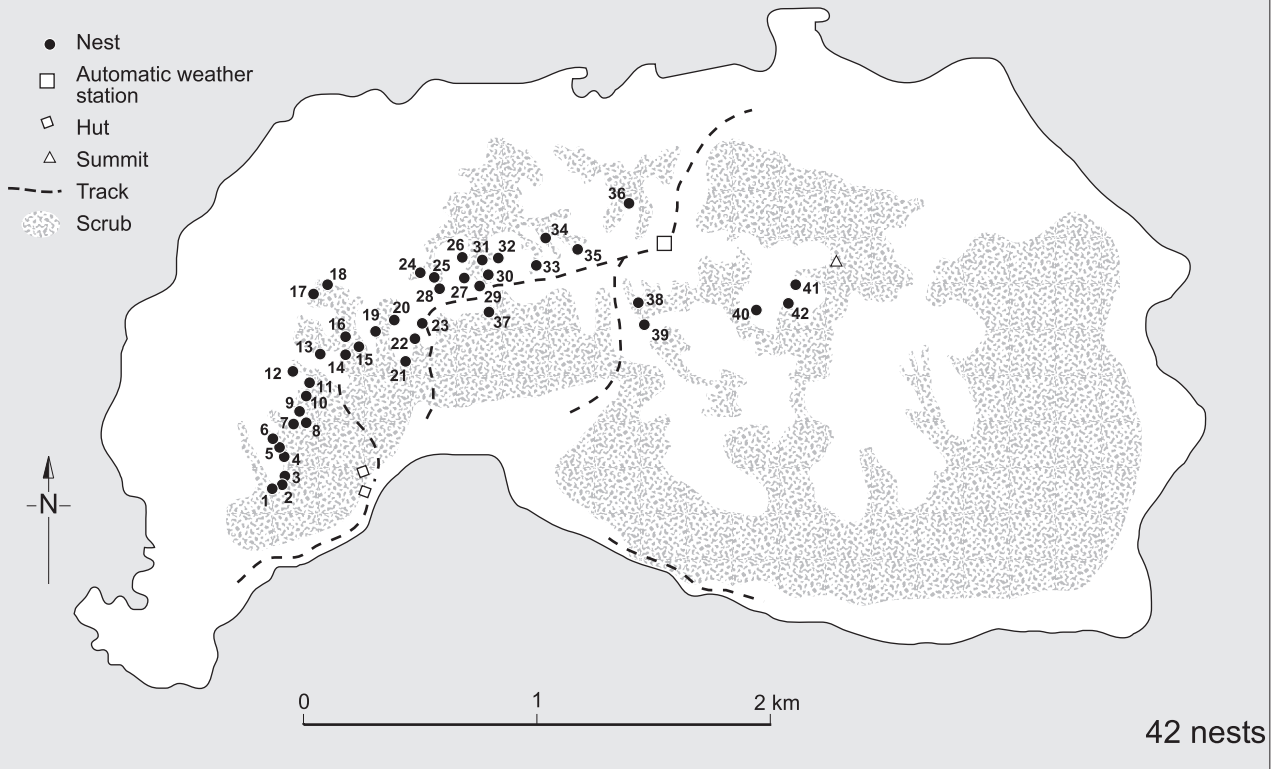
Enderby Island albatross nests 1996



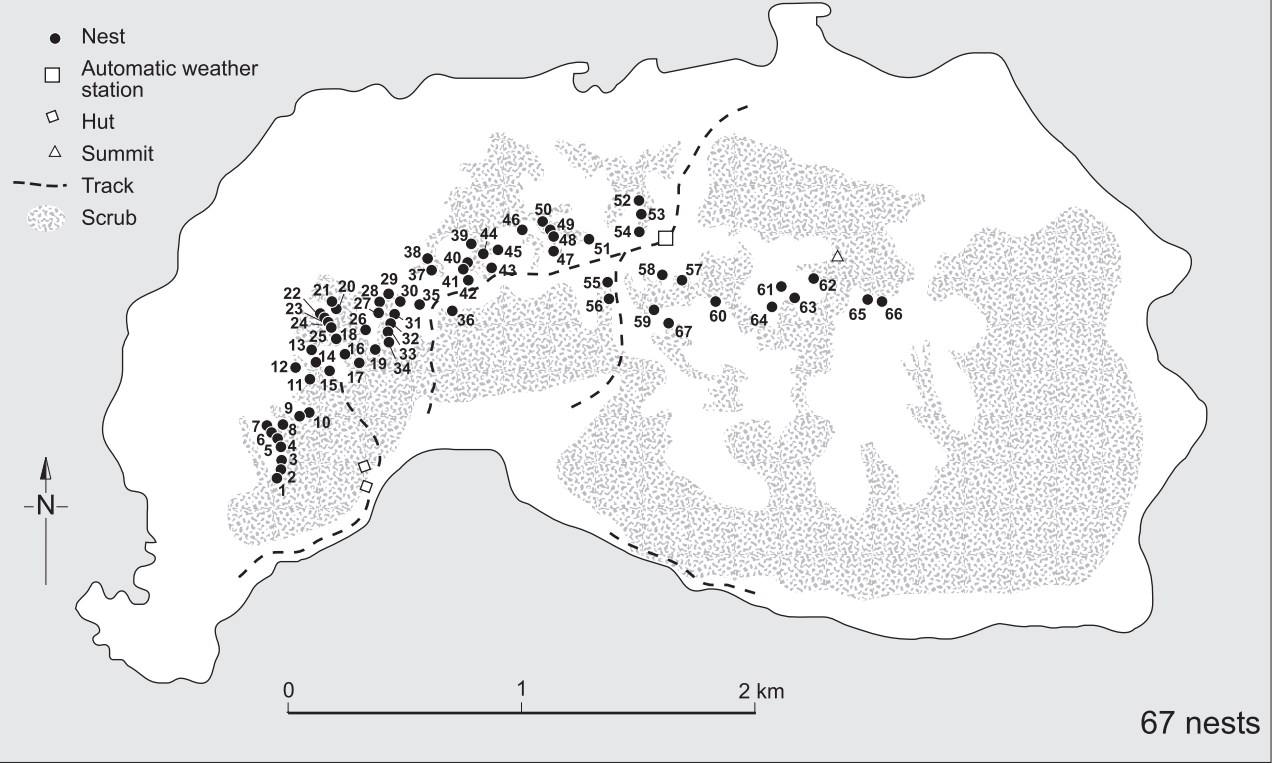
Enderby Island albatross nests 1997



Enderby Island albatross nests 1998

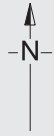


Enderby Island albatross nests 1999



Enderby Island albatross nests 2000

- Nest
- Automatic weather station
- ◇ Hut
- △ Summit
- - - Track
- ☼ Scrub

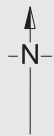


0 1 2 km

41 nests

Enderby Island albatross nests 2001

- Nest
- Automatic weather station
- ◇ Hut
- △ Summit
- - - Track
- ☼ Scrub



0 1 2 km

69 nests

Part 2

GPS locations of royal albatross nests on Enderby I. in 2000

NEST NO.	LATITUDE (°S)	LONGITUDE (°E)
1	50°30.204'	166°16.350'
2	50°30.194'	166°16.352'
3	50°30.151'	166°16.363'
4	50°30.128'	166°16.355'
5	50°30.102'	166°16.387'
6	50°30.095'	166°16.389'
7	50°30.020'	166°16.473'
8	50°30.014'	166°16.490'
9	50°29.992'	166°16.492'
10	50°29.952'	166°16.522'
11	50°29.850'	166°16.544'
12	50°29.847'	166°16.609'
13	50°29.867'	166°16.677'
14	50°29.851'	166°16.720'
15	50°29.754'	166°16.688'
16	50°29.790'	166°16.823'
17	50°29.740'	166°16.820'
18	50°29.737'	166°16.829'
19	50°29.794'	166°16.869'
20	50°29.787'	166°16.835'
21	50°29.825'	166°16.959'
22	50°29.775'	166°17.090'
23	50°29.729'	166°17.005'
24	50°29.712'	166°17.062'
25	50°29.734'	166°17.052'
26	50°29.727'	166°17.137'
27	50°29.662'	166°17.133'
28	50°29.700'	166°17.169'
29	50°29.686'	166°17.228'
30	50°29.697'	166°17.463'
31	50°29.687'	166°17.617'
32	50°29.791'	166°17.518'
33	50°29.813'	166°17.540'
34	50°29.815'	166°17.545'
35	50°29.797'	166°17.625'
36	50°29.765'	166°17.762'
37	50°29.826'	166°17.911'
38	50°29.807'	166°18.042'
39	50°29.763'	166°18.076'
40	50°29.765'	166°18.069'
41	50°29.857'	166°18.413'

Part 3

Nest numbers, including identification of individual breeding royal albatross, on Enderby I. 1992–2001

UB indicates an unbanded bird and ? indicates that a partner was present but not identified, e.g. a bird abandoned the nest before it was identified.

	1992		1993		1994		1995		1996		1997		1998		1999		2000		2001	
Nest	Bird 1	Bird 2	Bird 1	Bird 2	Bird 1	Bird 2	Bird 1	Bird 2	Bird 1	Bird 2	Bird 1	Bird 2	Bird 1	Bird 2	Bird 1	Bird 2	Bird 1	Bird 2	Bird 1	Bird 2
1	29651	29622	45001	UB	29655	45050	51106	UB	29601	29651	UB	45049	29570	45001	45001	29570	45051	28353	45051	28353
2	51101	51129	29601	?	51124	51103	34880	34857	45002	45024	UB	45001	51139	29571	51139	29571	29571	51139	29570	45001
3	51102	51127	45002	45024	43382	29677	45037	45005	51129	51101	29651	29601	29601	29651	29601	29651	29601	29651	29601	29651
4	34877	34852	45003	?	45030	51126	45039	51137	UB	45003	45002	45024	29561	45003	45002	45024	45024	45002	45024	45002
5	51103	51124	28359	?	34852	34877	34856	34872	UB	UB	45036	45044	29562	29579	29562	29579	45052	45057	51109	51101
6	51104	43382	?	?	30303	29679	45034	45006	30302	29605	51127	51102	29605	30302	51101	51109	45003	29561	45036	45044
7	51107	51148	45004	?	51102	51127	45042	51105	34852	34877	UB	UB	34853	34877	45044	45036	34877	34853	51102	51127
8	34856	51149	34857	34880	29605	30302	34873	45007	30303	29679	UB	UB	29679	30303	51102	51127	29679	30303	51128	29553
9	51108	29669	51148	51107	45049	?	45027	45008	UB	51128	34879	34854	29563	51128	29581	29593	34879	34854	29581	29593
10	34872	51118	45005	UB	45044	45036	51123	45009	UB	UB	UB	?	29564	29580	29582	29599	29580	29564	34853	34877
11	29635	29674	51108	29669	45003	UB	45025	51147	51136	UB	29634	43381	29565	51136	29565	51136	45053	45058	29582	29599
12	51109	34883	45006	?	51101	51129	45011	51110	45043	45035	45035	45043	29566	29578	29578	29566	51103	51124	45077	45078
13	51110	?	45007	34873	51109	34883	45040	45012	UB	UB	34880	34857	51124	51103	34857	34880	29567	34858	45035	45043
14	51111	34855	45008	45027	34900	34871	51139	UB	45030	51126	51106	UB	34858	29567	34881	29677	43382	45030	29566	29578
15	51113	51143	45009	51123	29674	29635	?	?	29655	45050	45050	29655	51125	45004	29583	51106	29594	29585	34880	34857
16	51114	51120	45010	34886	45015	?	45044	45036	34858		34858	UB	43382	45030	45050	29655	45063	29584	51106	?
17	51115	51144	51118	34872	45041	45014	51102	51127	51125	45004	51148	51107	34856	34876	51125	45004	45054	45060	29655	45050
18	51116	51145	45011	51110	34887	34884	34878	34853	51103	51124	45005	45037	45006	45034	45030	43382	51105	45042	45004	51125
19	30313	51146	45012	?	45042	51105	34879	34854	29677	43382	51137	45039	51105	45042	29584	45063	29551	29569	45079	45084
20	34888	34867	29635	?	45009	51123	UB	UB	45006	45034	UB	UB	29678	34882	29585	29594	34887	34884	45034	45006
21	34864	51141	51147	45025	51111	34855	29634	43381	UB	UB	UB	UB	29553	29568	45006	45034	45055	45073	45026	45083
22	34893	34865	45013	28353	45011	51110	45043	45035	29669		45013	28353	29551	29569	34876	34856	34870	29574	34876	34856
23	34894	34889	45014	?	34882	29678	UB	UB	UB	UB	45014	45041	29552	29573	51137	45039	51112	34855	51137	45039
24	34892	34863	45015	45028	51150	51119	51107	51148	51105	45042	34873	45007	29554	29555	45005	45037	29596	29587	45005	45037
25	34874	34898	51121	?	45024	45002	UB	UB	34882	29678	UB	UB	51116	29572	51148	51107	51113	51143	51148	51107
26	51119	51150	29645	29660	29651	29601	28353	45013	UB	UB	45008	45027	51120	29556	34873	45007	30315	29597	45060	45054
27	29678	34882	51120	?	29666	29650	45041	45014	34900	34871	51119	51150	51112	34855	45011	29595	29557	29575	45080	45089
28	51125	?	45016	?	45035	45043	34884	34887	34883	51109	UB	51147	34898	51122	51150	51119	45033	51142	45081	45082
29	51126	?	45017	43379	45006	45034	45028	45015	45011	51110	34871	34900	51143	51113	29586	51123	29558	51131	51119	51150
30	51142	?	51142	?	34856	34872	51121	51122	UB	UB	45028	45015	30315	UB	34900	34871	45008	45045	34882	29678
31	51147	?	34868	43380	51146	30313	51116	51145	51146	30313	UB	?	29557	29575	45025	51147	29592	45064	51147	45025
32	?	?	45018	51132	51115	51144	51115	UB	51140	UB	UB	UB	45033	51142	34884	34887	45046	51133	34871	34900
33			45019	?	51112	UB	UB	?	45033	51142	51115	51144	29558	51131	45041	45014	29598	45071	45041	45014
34			29658	34862	51140	?	UB	45019	51131	UB	51143	51113	34888	34867	45028	45015	45056	45059	34887	34884
35			34870	?	51113	51143	34862	29658	34888	34867	51112	34855	51141	34864	29573	29552	29576	34861	45028	45015
36			45020	34859	51142	45033	45018	51132	51141	34864	45017	43379	34899	34866	45012	45040	45074	45075	29551	29569
37			45021	?	34888	34867	43380	34868	45045	UB	UB	UB	34870	29574	29572	51116	29559	29577	51118	34867
38			45022	45026	51141	34864	51113	51143	34866	34899	51142	45033	34861	29576	51115	51144	45023	45029	45055	45073
39			34898	?	45045	UB	43379	45017	45023	45029	34868	43380	34863	34892	51120	29556	45031	29560	45012	45040
40			45023	45029	?	?	51120	51114	34874	34898	UB	UB	29559	29577	51113	51143	45066	51134	29574	34870
41			34876	34875	34866	34899	34870	UB	34876	34875	51132	45018	29560	45031	29587	29596	51135	45076	51114	51122

	1992		1993		1994		1995		1996		1997		1998		1999		2000		2001	
Nest	Bird 1	Bird 2	Bird 1	Bird 2	Bird 1	Bird 2	Bird 1	Bird 2	Bird 1	Bird 2	Bird 1	Bird 2	Bird 1	Bird 2	Bird 1	Bird 2	Bird 1	Bird 2	Bird 1	Bird 2
42			29673	?	34874	?	45047	UB	UB	45031	UB	45019	45023	45029	43379	45017			29572	51116
43			34858	?	45031	UB	45022	45026	34894	34889	UB	45045			30315	29597			51144	51115
44			?	?	34876	34875	UB	UB	34892	34863	51133	45046			29588	51140			29554	45085
45			?	?	45029	45023	34860	34890	45022	45026	45012	45040			51142	45033			51120	29556
46					45021	45048	34859	45020	45046	51133	51114	51118			34868	43380			29588	51140
47					45047	UB	34861	UB	?	UB	34893	34865			29589	45068			45017	43379
48					34892	34863	34865	34893			UB	UB			51132	45018			UB	?
49					45046	51133	UB	UB			45020	34859			29590	45069			51143	51113
50					45032	UB	UB	UB			34890	34860			29591	45019			29586	45090
51					34858	UB	UB	45001			34861	UB			51141	34864			45068	?
52					51145	?	45049	UB			45047	UB			34899	34866			45018	51132
53							29673	29681			UB	51134			29592	45064			29590	45069
54							34898	34874			UB	UB			34865	34893			45019	29591
55							45048	?			51135	UB			45046	51133			34864	51141
56											34884	34887			29598	45071			34865	34893
57															45020	34859			51117	45086
58															34890	34860			51133	45046
59															29600	45072			45087	45091
60															45061	45047			34890	34860
61															34862	29673			45020	34859
62															45066	51134			45088	?
63															45049	34875			45072	29600
64															34874	UB			45061	45047
65															51114	45032			45049	34875
66															45062	45067			29560	45031
67															45065	45070			29673	34862
68																			34874	45092
69																			45067	45062

Part 4

Individual sighting records for royal albatross on Enderby I. 1992–2001

1 indicates a bird seen nesting, 0 a bird not seen in this season, and NB a bird seen as a non-breeder

BIRD	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
28353		1	0	1	0	1	0	0	1	1
28359		1	0	0	0	0	0	0	0	0
29551							1	0	1	1
29552							1	1	0	0
29553							1	0	0	1
29554							1	0	0	1
29555							1	0	0	0
29556							1	1	0	1
29557							1	0	1	0
29558							1	0	1	0
29559							1	0	1	0
29560							1	0	1	1
29561							1	0	1	0
29562							1	1	0	0
29563							1	0	0	0
29564							1	0	1	0
29565							1	1	0	0
29566							1	1	0	1
29567							1	0	1	0
29568							1	0	0	0
29569							1	0	1	1
29570							1	1	0	1
29571							1	1	1	0
29572							1	1	0	1
29573							1	1	0	0
29574							1	0	1	1
29575							1	0	1	0
29576							1	0	1	0
29577							1	0	1	0
29578							1	1	0	1
29579							1	1	0	0
29580							1	0	1	0
29581								1	0	1
29582								1	0	1
29583								1	0	0
29584								1	1	0
29585								1	1	0
29586								1	0	1
29587								1	1	0
29588								1	0	1
29589								1	0	0
29590								1	0	1
29591								1	0	1

BIRD	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
29592								1	1	0
29593								1	0	1
29594								1	1	0
29595								1	0	0
29596								1	1	0
29597								1	1	0
29598								1	1	0
29599								1	0	1
29600								1	0	1
29601		1	1	0	1	1	1	1	1	1
29605			1	0	1	0	1	0	0	0
29622	1	0	0	0	0	0	0	0	0	0
29634				1	0	1	0	0	0	0
29635	1	1	1	0	0	0	0	0	0	0
29645		1	0	0	0	0	0	0	0	0
29650			1	0	0	0	0	0	0	0
29651	1	0	1	0	1	1	1	1	1	1
29655			1	0	1	1	0	1	0	1
29658		1	0	1	0	0	0	0	0	0
29660		1	0	0	0	0	0	0	0	0
29666			1	0	0	0	0	0	0	0
29669	1	1	0	0	1	0	0	0	0	0
29673		1	0	1	0	0	0	1	0	1
29674	1	0	1	0	0	0	0	0	0	0
29677			1	0	1	0	0	1	0	0
29678	1	0	1	0	1	0	1	0	0	1
29679			1	0	1	0	1	0	1	0
29681				1	0	0	0	0	0	0
30302			1	0	1	0	1	0	0	0
30303			1	0	1	0	1	0	1	0
30313	1	0	1	0	1	0	0	0	0	0
30315							1	1	1	0
34852	1	0	1	0	1	0	0	0	0	0
34853				1	0	0	1	0	1	1
34854				1	0	1	0	0	1	0
34855	1	0	1	0	0	1	1	0	1	0
34856	1	0	1	1	0	0	1	1	0	1
34857		1	0	1	0	1	0	1	0	1
34858		1	1	0	1	1	1	0	1	0
34859		1	0	1	0	1	0	1	0	1
34860				1	0	1	0	1	0	1
34861				1	0	1	1	0	1	0
34862		1	0	1	0	0	0	1	0	1
34863	1	0	1	0	1	0	1	0	0	0
34864	1	0	1	0	1	0	1	1	0	1
34865	1	0	0	1	0	1	0	1	0	1
34866			1	0	1	0	1	1	0	0
34867	1	0	1	0	1	0	1	0	0	1
34868		1	0	1	0	1	0	1	0	0
34870		1	0	1	0	0	1	0	1	1
34871			1	0	1	1	0	1	0	1
34872	1	1	1	1	0	0	0	0	0	0
34873		1	0	1	0	1	0	1	0	0
34874	1	0	1	1	1	0	0	1	0	1

BIRD	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
34875		1	1	0	1	0	0	1	0	1
34876		1	1	0	1	0	1	1	0	1
34877	1	0	1	0	1	0	1	0	1	1
34878				1	0	0	0	0	0	0
34879				1	0	1	0	0	1	0
34880		1	0	1	0	1	0	1	0	1
34881								1	0	0
34882	1	0	1	0	1	0	1	0	0	1
34883	1	0	1	0	1	0	0	0	0	0
34884			1	1	0	1	0	1	1	1
34886		1	0	0	0	0	0	0	0	0
34887			1	1	0	1	0	1	1	1
34888	1	0	1	0	1	0	1	0	0	0
34889	1	0	0	0	1	0	0	0	0	0
34890				1	0	1	0	1	0	1
34892	1	0	1	0	1	0	1	0	0	0
34893	1	0	0	1	0	1	0	1	0	1
34894	1	0	0	0	1	0	0	0	0	0
34898	1	1	0	1	1	0	1	0	0	0
34899			1	0	1	0	1	1	0	0
34900			1	0	1	1	0	1	0	1
43379		1	0	1	0	1	0	1	0	1
43380		1	0	1	0	1	0	1	0	0
43381				1	0	1	0	0	0	0
43382	1	0	1	0	1	0	1	1	1	0
45001		1	0	1	0	1	1	1	0	1
45002		1	1	0	1	1	0	1	1	1
45003		1	1	0	1	0	1	0	1	0
45004		1	0	0	1	0	1	1	0	1
45005		1	0	1	0	1	0	1	0	1
45006		1	1	1	1	0	1	1	0	1
45007		1	0	1	0	1	0	1	0	0
45008		1	0	1	0	1	0	0	1	0
45009		1	1	1	0	0	0	0	0	0
45010		1	0	0	0	0	0	0	0	0
45011		1	1	1	1	0	0	1	0	0
45012		1	0	1	0	1	0	1	0	1
45013		1	0	1	0	1	0	0	0	0
45014		1	1	1	0	1	0	1	0	1
45015		1	1	1	0	1	0	1	0	1
45016		1	0	0	0	0	0	0	0	0
45017		1	0	1	0	1	0	1	0	1
45018		1	0	1	0	1	0	1	0	1
45019		1	0	1	0	1	0	1	0	1
45020		1	0	1	0	1	0	1	0	1
45021		1	1	0	0	0	0	0	0	0
45022		1	0	1	1	0	0	0	0	0
45023		1	1	0	1	0	1	0	1	0
45024		1	1	0	1	1	0	1	1	1
45025		1	0	1	0	0	0	1	0	1
45026		1	0	1	1	0	0	0	0	1
45027		1	0	1	0	1	0	0	0	0
45028		1	0	1	0	1	0	1	0	1
45029		1	1	0	1	0	1	0	1	0

BIRD	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
45030			1	0	1	0	1	1	1	0
45031			1	0	1	0	1	0	1	1
45032			1	0	0	0	0	1	0	0
45033			1	0	1	1	1	1	1	0
45034			1	1	1	0	1	1	0	1
45035			1	1	1	1	0	0	0	1
45036			1	1	0	1	0	1	0	1
45037				1	0	1	0	1	0	1
45039				1	0	1	0	1	0	1
45040				1	0	1	0	1	0	1
45041			1	1	0	1	0	1	0	1
45042			1	1	1	0	1	0	1	0
45043			1	1	1	1	0	0	0	1
45044			1	1	0	1	0	1	0	1
45045			1	0	1	1	0	0	1	0
45046			1	0	1	1	0	1	1	1
45047			1	1	0	1	0	1	0	1
45048			1	1	0	0	0	0	0	0
45049			1	1	0	1	0	1	0	1
45050			1	0	1	1	0	1	0	1
45051									1	1
45052									1	0
45053									1	0
45054									1	1
45055									1	1
45056									1	0
45057									1	0
45058									1	0
45059									1	0
45060									1	1
45061								1	0	1
45062								1	0	1
45063								1	1	0
45064								1	1	0
45065								1	0	0
45066								1	1	0
45067								1	0	1
45068								1	0	1
45069								1	0	1
45070								1	0	0
45071								1	1	0
45072								1	0	1
45073									1	1
45074									1	0
45075									1	0
45076									1	0
45077										1
45078										1
45079										1
45080										1
45081										1
45082										1
45083										1
45084										1
45085										1

BIRD	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
45086										1
45087										1
45088										1
45089										1
45090										1
45091										1
45092										1
51101	1	0	1	0	1	0	0	1	0	1
51102	1	0	1	1	0	1	0	1	0	1
51103	1	0	1	0	1	0	1	0	1	0
51104	1	0	0	0	0	0	0	0	0	0
51105			1	1	1	0	1	0	1	0
51106				1	0	1	0	1	0	1
51107	1	1	0	1	0	1	0	1	0	1
51108	1	1	0	0	0	0	0	0	0	0
51109	1	0	1	0	1	0	0	1	0	1
51110	NB	1	1	1	1	0	0	0	0	0
51111	1	0	1	0	0	0	0	0	0	0
51112			1	0	0	1	1	0	1	0
51113	1	0	1	1	0	1	1	1	1	1
51114	1	0	0	1	0	1	0	1	0	1
51115	1	0	1	1	0	1	0	1	0	1
51116	1	0	0	1	0	0	1	1	0	1
51117										1
51118	1	1	0	0	0	1	0	0	0	1
51119	1	0	1	0	0	1	0	1	0	1
51120	1	1	0	1	0	0	1	1	0	1
51121		1	0	1	0	0	0	0	0	0
51122				1	0	0	1	0	0	1
51123		1	1	1	0	0	0	1	0	0
51124	1	0	1	0	1	0	1	0	1	0
51125	1	0	0	0	1	0	1	1	0	1
51126	1	0	1	0	1	0	0	0	0	0
51127	1	0	1	1	0	1	0	1	0	1
51128					1	0	1	0	0	1
51129	1	0	1	0	1	0	0	0	0	0
51131					1	0	1	0	1	0
51132		1	0	1	0	1	0	1	0	1
51133			1	0	1	1	0	1	1	1
51134						1	0	1	1	0
51135						1	0	0	1	0
51136					1	0	1	1	0	0
51137				1	0	1	0	1	0	1
51139				1	0	0	1	1	1	0
51140			1	0	1	0	0	1	0	1
51141	1	0	1	0	1	0	1	1	0	1
51142	1	1	1	0	1	1	1	1	1	0
51143	1	0	1	1	0	1	1	1	1	1
51144	1	0	1	0	0	1	0	1	0	1
51145	1	0	1	1	0	0	0	0	0	0
51146	1	0	1	0	1	0	0	0	0	0
51147	1	1	0	1	0	1	0	1	0	1
51148	1	1	0	1	0	1	0	1	0	1
51149	1	0	0	0	0	0	0	0	0	0
51150	1	0	1	0	0	1	0	1	0	1

Part 5

Records of nesting partner associations of royal albatross on Enderby I. 1992–2001

? indicates that the partner was not identified, and UB that the partner was unbanded.

BIRD	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
28353	45013	45013		45013		45013			45051	45051
28359		?								
29551							29569		29569	29569
29552							29573	29573		
29553							29568			51128
29554							29555			45085
29555							29554			
29556							51120	51120		51120
29557							29575		29575	
29558							51131		51131	
29559							29577		29577	
29560							45031		45031	45031
29561							45003		45003	
29562							29579	29579		
29563							51128			
29564							29580		29580	
29565							51136	51136		
29566							29578	29578		29578
29567							34858		34858	
29568							29553			
29569							29551		29551	29551
29570							45001	45001		45001
29571							51139	51139	51139	
29572							51116	51116		51116
29573							29552	29552		
29574							34870		34870	34870
29575							29557		29557	
29576							34861		34861	
29577							29559		29559	
29578							29566	29566		29566
29579							29562	29562		
29580							29564		29564	
29581								29593		29593
29582								29599		29599
29583								51106		
29584								45063	45063	
29585								29594	29594	
29586								51123		45090
29587								29596	29596	
29588								51140		51140
29589								45068		
29590								45069		45069
29591								45019		45019

BIRD	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
29592								45064	45064	
29593								29581		29581
29594								29585	29585	
29595								45011		
29596								29587	29587	
29597								30315	30315	
29598								45071	45071	
29599								29582		29582
29600								45072		45072
29601		?	29651		29651	29651	29651	29651	29651	29651
29605			30302		30302		30302			
29622	29651									
29634				43381		43381				
29635	29674	?	29674							
29645		29660								
29650			29666							
29651	29622		29601		29601	29601	29601	29601	29601	29601
29655			45050		45050	45050		45050		45050
29658		34862		34862						
29660		29645								
29666			29650							
29669	51108	51108				?				
29673		?		29681				34862		34862
29674	29635		29635							
29677			43382		43382			34881		
29678	34882		34882		34882		34882			34882
29679			30303		30303		30303		30303	
29681				29673						
30302			29605		29605		29605			
30303			29679		29679		29679		29679	
30313	51146		51146		51146					
30315							UB	29597	29597	
34852	34877		34877		34877					
34853				34878			34877		34877	34877
34854				34879		34879			34879	
34855	51111		51111			51112	51112		51112	
34856	51149		34872	34872			34876	34876		34876
34857		34880		34880		34880		34880		34880
34858		?	UB		UB	UB	29567		29567	
34859		45020		45020		45020		45020		45020
34860				34890		34890		34890		34890
34861				UB		UB	29576		29576	
34862		29658		29658				29673		29673
34863	34892		34892		34892		34892			
34864	51141		51141		51141		51141	51141		51141
34865	34893			34893		34893		34893		34893
34866			34899		34899		34899	34899		
34867	34888		34888		34888		34888			51118
34868		43380		43380		43380		43380		
34870		?		UB			29574		29574	29574
34871			34900		34900	34900		34900		34900
34872	51118	51118	34856	34856						
34873		45007		45007		45007		45007		
34874	34898		?	34898	34898			UB		45092

BIRD	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
34875		34876	34876		34876			45049		45049
34876		34875	34875		34875		34856	34856		34856
34877	34852		34852		34852		34853		34853	34853
34878				34853						
34879				34854		34854			34854	
34880		34857		34857		34857		34857		34857
34881								29677		
34882	29678		29678		29678		29678			29678
34883	51109		51109		51109					
34884			34887	34887		34887		34887	34887	34887
34886		45010								
34887			34884	34884		34884		34884	34884	34884
34888	34867		34867		34867		34867			
34889	34894				34894					
34890				34860		34860		34860		34860
34892	34863		34863		34863		34863			
34893	34865			34865		34865		34865		34865
34894	34889				34889					
34898	34874	?		34874	34874		51122			
34899			34866		34866		34866	34866		
34900			34871		34871	34871		34871		34871
43379		45017		45017		45017		45017		45017
43380		34868		34868		34868		34868		
43381				29634		29634				
43382	51104		29677		29677		45030	45030	45030	
45001		UB		UB		UB	29570	29570		29570
45002		45024	45024		45024	45024		45024	45024	45024
45003		?	UB		UB		29561		29561	
45004		?			51125		51125	51125		51125
45005		UB		45037		45037		45037		45037
45006		?	45034	45034	45034		45034	45034		45034
45007		34873		34873		34873		34873		
45008		45027		45027		45027			45045	
45009		51123	51123	51123						
45010		34886								
45011		51110	51110	51110	51110			29595		
45012		?		45040		45040		45040		45040
45013		28353		28353		28353				
45014		?	45041	45041		45041		45041		45041
45015		45028	?	45028		45028		45028		45028
45016		?								
45017		43379		43379		43379		43379		43379
45018		51132		51132		51132		51132		51132
45019		?		UB		UB		29591		29591
45020		34859		34859		34859		34859		34859
45021		?	45048							
45022		45026		45026	45026					
45023		45029	45029		45029		45029		45029	
45024		45002	45002		45002	45002		45002	45002	45002
45025		51147		51147				51147		51147
45026		45022		45022	45022					45083
45027		45008		45008		45008				
45028		45015		45015		45015		45015		45015
45029		45023	45023		45023		45023		45023	

BIRD	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
45030			51126		51126		43382	43382	43382	
45031			UB		UB		29560		29560	29560
45032			UB					51114		
45033			51142		51142	51142	51142	51142	51142	
45034			45006	45006	45006		45006	45006		45006
45035			45043	45043	45043	45043				45043
45036			45044	45044		45044		45044		45044
45037				45005		45005		45005		45005
45039				51137		51137		51137		51137
45040				45012		45012		45012		45012
45041			45014	45014		45014		45014		45014
45042			51105	51105	51105		51105		51105	
45043			45035	45035	45035	45035				45035
45044			45036	45036		45036		45036		45036
45045			UB		UB	UB			45008	
45046			51133		51133	51133		51133	51133	51133
45047			UB	UB		UB		45061		45061
45048			45021	?						
45049			?	UB		UB		34875		34875
45050			29655		29655	29655		29655		29655
45051									28353	28353
45052									45057	
45053									45058	
45054									45060	45060
45055									45073	45073
45056									45059	
45057									45052	
45058									45053	
45059									45056	
45060									45054	45054
45061								45047		45047
45062								45067		45067
45063								29584	29584	
45064								29592	29592	
45065								45070		
45066								51134	51134	
45067								45062		45062
45068								29589		?
45069								29590		29590
45070								45065		
45071								29598	29598	
45072								29600		29600
45073									45055	45055
45074									45075	
45075									45074	
45076									51135	
45077										45078
45078										45077
45079										45084
45080										45089
45081										45082
45082										45081
45083										45026
45084										45079

BIRD	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
245085										29554
45086										51117
45087										45091
45088										?
45089										45080
45090										29586
45091										45087
45092										34874
51101	51129		51129		51129			51109		51109
51102	51127		51127	51127		51127		51127		51127
51103	51124		51124		51124		51124		51124	
51104	43382									
51105			45042	45042	45042		45042		45042	
51106				UB		UB		29583		?
51107	51148	51148		51148		51148		51148		51148
51108	29669	29669								
51109	34883		34883		34883			51101		51101
51110		45011	45011	45011	45011					
51111	34855		34855							
51112			UB			34855	34855		34855	
51113	51143		51143	51143		51143	51143	51143	51143	51143
51114	51120			51120		51118		45032		51122
51115	51144		51144	UB		51144		51144		51144
51116	51145			51145			29572	29572		29572
51117										45086
51118	34872	34872				51114				34867
51119	51150		51150			51150		51150		51150
51120	51114	?		51114			29556	29556		29556
51121		?		51122						
51122				51121			34898			51114
51123		45009	45009	45009				29586		
51124	51103		51103		51103		51103		51103	
51125	?				45004		45004	45004		45004
51126	?		45030		45030					
51127	51102		51102	51102		51102		51102		51102
51128					UB		29563			29553
51129	51101		51101		51101					
51131					UB		29558		29558	
51132		45018		45018		45018		45018		45018
51133			45046		45046	45046		45046	45046	45046
51134						UB		45066	45066	
51135						UB			45076	
51136					UB		29565	29565		
51137				45039		45039		45039		45039
51139				UB			29571	29571	29571	
51140			?		UB			29588		29588
51141	34864		34864		34864		34864	34864		34864
51142	?	?	45033		45033	45033	45033	45033	45033	
51143	51113		51113	51113		51113	51113	51113	51113	51113
51144	51115		51115			51115		51115		51115
51145	51116		?	51116						
51146	30313		30313		30313					
51147	?	45025		45025		UB		45025		45025
51148	51107	51107		51107		51107		51107		51107
51149	34856									
51150	51119		51119			51119		51119		51119