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Seabird Tracking Data – Gap Analysis

***Maria Dias, Ben Lascelles, Cleo Small and Richard
Phillips***

SUMMARY

Since its creation in 2004, the BirdLife International managed Seabird Tracking Database *Tracking Ocean Wanderers* (TOW) has been a central repository for tracking data collected by researchers all over the world. It now houses data for all ACAP species, and includes data collected from 89 colonies covering a range of life-history stages. In addition, in recent years, some new studies have published data that have not yet been deposited in the TOW database, and some others are currently ongoing. Giving the relevance of the TOW dataset for seabird conservation, it is imperative to monitor the data already gathered and the new data being collected, particularly from colonies that have never been tracked before and/or for less well studied life-history stages (e.g. – at sea movements of young birds). BirdLife International has now compiled and summarized all the available information on tracking studies undertaken on ACAP listed species into a single metadata table (Seabird Tracking Metadata). This will be regularly updated in order to assess where major gaps in knowledge of the at sea distribution of these species occur, thus helping set future study priorities. A first assessment of such gaps is presented in this paper.

RECOMMENDATIONS

The value of the *Tracking Ocean Wanderers* database as a tool for seabird conservation relies largely on the continuous collaboration from the seabird ecologists' community, so we recommend the working group to:

1. Encourage its members, and other researchers conducting tracking studies, to submit their data to the BirdLife International's Seabird Tracking Database (<http://www.seabirdtracking.org/>);
2. Advise BirdLife International of any other data not captured in the current analysis;
3. Request the AC/Parties to encourage and support research to fill the gaps identified in the present analysis.

Datos de seguimiento de aves marinas: Análisis de vacíos de información

Desde su creación en 2004, la base de datos de seguimiento de aves marinas organizada por BirdLife International, Tracking Ocean Wanderers (TOW), ha sido una fuente central de información para el seguimiento de datos recabados por investigadores de todo el mundo. Hoy alberga datos de todas las especies del ACAP, incluye información recopilada en 89 colonias y comprende diversas fases del ciclo biológico. Además, en los últimos años, ciertos nuevos estudios publicaron datos que aún no se incorporaron a la base de datos TOW y hay más investigaciones actualmente en curso. Dada la importancia de esta base de datos para la conservación de aves marinas, resulta imperante controlar los datos ya recabados y los nuevos, en especial de las colonias donde nunca antes se habían realizado seguimientos y/o durante fases del ciclo biológico poco estudiadas (por ejemplo, la movilidad en el mar de las aves jóvenes). BirdLife International ha compilado y sintetizado toda la información disponible sobre los estudios de seguimiento efectuados entre las especies incluidas en el ACAP y ha confeccionado una tabla de metadatos unificada (Metadatos sobre seguimiento de aves marinas). Dicha tabla será actualizada con regularidad para evaluar dónde ocurren los principales vacíos de información sobre la distribución oceánica de estas especies y así ayudar a establecer prioridades futuras de estudio. Este documento presenta la primera evaluación de tales vacíos de información.

RECOMENDACIONES

El valor de la base de datos de seguimiento *Tracking Ocean Wanderers* como herramienta para la conservación de aves marinas depende principalmente de la constante colaboración por parte de la comunidad de ecologistas dedicados a las aves marinas. Por consiguiente, recomendamos al grupo de trabajo las siguientes acciones:

1. que impulse a sus miembros y a otros investigadores dedicados a los estudios de seguimiento a incorporar sus datos en la base de datos de seguimiento de aves marinas de BirdLife International (<http://www.seabirdtracking.org/>);
2. que asesore a BirdLife International sobre cualquier otra información disponible que no se hubiera incorporado en el presente análisis; y
3. que solicite a las Partes/al CA que fomenten y respalden todo esfuerzo de investigación para subsanar los vacíos de información identificados en el presente análisis.

Données de suivi des oiseaux marins - Analyse des lacunes

Depuis sa création en 2004, la base de données de suivi des oiseaux marins *Tracking Ocean Wanderers* (TOW) gérée par BirdLife International constitue un centre d'information sur le suivi des données recueillies par les chercheurs du monde entier. Elle abrite aujourd'hui des informations sur l'ensemble des espèces de l'ACAP et contient des données collectées dans 89 colonies, tout au long du cycle de vie. Par ailleurs, au cours des dernières années, certaines nouvelles études ont publié des données qui n'ont pas encore été enregistrées dans la base de données TOW, et d'autres études sont actuellement en cours. Étant donné l'importance de l'ensemble de données TOW pour la conservation des oiseaux marins, il est impératif de suivre les données déjà collectées et les nouvelles données recueillies, particulièrement celles sur les espèces jamais étudiées auparavant et/ou celles portant sur des étapes du cycle de vie moins étudiées (p. ex. les mouvements en mer des jeunes oiseaux). BirdLife International a rassemblé et résumé dans un seul tableau de métadonnées toutes les informations disponibles sur les études de suivi menées sur les espèces inscrites à l'ACAP (Seabird Tracking Metadata). Ce tableau est régulièrement mis à jour afin de déterminer où se situent les principales lacunes d'informations relatives à la répartition en mer de ces espèces, permettant ainsi de mieux déterminer les futures priorités d'étude. Le présent document présente une première évaluation de ces lacunes.

RECOMMANDATIONS

La valeur de la base de données *Tracking Ocean Wanderers* comme outil de conservation des oiseaux marins dépend largement de la collaboration continue de la communauté des écologistes étudiant les oiseaux marins. Nous recommandons ainsi au Groupe de travail de :

1. encourager ses membres, et tout autre chercheur menant des études de suivi, à transmettre leurs données à la base de données de suivi des oiseaux marins de BirdLife International (<http://www.seabirdtracking.org/>) ;
2. informer BirdLife International de toutes les autres données non recueillies lors de l'analyse actuelle ;
3. demander au(x) CC/Parties de promouvoir et soutenir la recherche afin de combler les lacunes identifiées dans la présente analyse.

1. SEABIRD TRACKING METADATA

1.1. Data Collection

The *Tracking Ocean Wanderers* (TOW) database (www.seabirdtracking.org) has brought together the vast majority of tracking data for Procellariiformes species collected so far, and was the main source of information for the creation of a Seabird Tracking Metadata table. Therefore, the structure of the metadata table was developed to mirror the levels of information already existing in TOW (Table 1), and allow increased interoperability among databases in the future. BirdLife International took this opportunity to update/correct some of the data stored in TOW (particularly with respect to the locations of tag deployments) to ensure a closer fit with data held by ACAP.

Table 1: Structure of the *Seabird Tracking Metadata* table

Field	Description	Possible values
Scientific name		
Common name		
Site	Site of deployment	ACAP sites and “at-sea”
Breeding phase	Phase of breeding cycle	Breeding/non-breeding/both
Breeding Stage	Stage of breeding cycle	Pre-egg/incubation/brood-guard/post-guard/non-breeding
Age		Adult/Immature/Juvenile
Ntracks	Number of individual tracks	
Ndays	Number of days of tracking	
Status of the data	Data already submitted to TOW, published or ongoing studies	TOW/published/ongoing
References	Source of information	
Contact	E-mail contact of data-owner(s)	

All the data stored in TOW was summarized to populate the metadata table, and complemented with information collected from published scientific studies. We used standard and science-specialized web search engines (e.g. Google, Google Scholar, Research Gate) to look for tracking studies for each species, giving a particular attention to those conducted more recently (as these are the most likely to be new additions to the information already collected in the TOW database). Twenty six entries were added to the table as the result of this search (the complete list of references used can be found in Annex 1; note that only studies with data not already included in TOW database are mentioned here). Finally, all TOW data-owners were contacted and invited to provide details about any further data missing (resulting in a further 81 entries added to the metadata table).

1.2. Summary of the seabird tracking metadata table

A total of 9913 individual tracks, collected for the 30 ACAP species during different breeding stages and ages, were identified (Table 2). Of these, 3949 have not yet been submitted to the TOW database.

Table 2: Summary of tracking data collected for ACAP species. N sites total: Total number of breeding sites, following ACAP colony database. A complete list detailing the number of tracks by sites can be found in Annex 2. Numbers in parenthesis = number of tracks not submitted to TOW.

Species	N Sites Total	N Sites with tracking	Number of tracks collected				
			Adults Breeding	Adults Non-breeding	Young birds	Unknown stage/age	Total
Northern Royal Alb.	5	3	66	14	7(3)	3	90
Southern Royal Alb.	4	1	21(4)	0	0	0	21
Wandering Alb.	42	6	1183 (591)	448 (410)	320 (217)	1	1952
Antipodean Alb.	7	3	122	38	3	0	163
Amsterdam Alb.	1	1	72 (57)	12 (12)	16 (13)	0	100
Tristan Alb.	2	1	157 (10)	14	6 (6)	13 (13)	190
Sooty Alb.	15	5	147 (76)	56 (33)	10 (5)	6 (6)	219
Light-mantled Alb.	71	6	112 (42)	50 (48)	7 (7)	0	169
Waved Alb.	3	2	81 (16)	0	0	0	81
Black-footed Alb.	18	3	129	91 (46)	35 (12)	0	255
Laysan Alb.	20	6	235	103 (63)	0	18	356
Short-tailed Alb.	5	2	21	32	8	0	61
Atlantic Yellow-nosed Alb.	6	2	81	59 (20)	10 (10)	0	150
Indian Yellow-nosed Alb.	7	2	80	1	4 (4)	0	85
Grey-headed Alb.	29	6	670 (250)	57 (30)	34 (33)	0	761
Black-browed Alb.	66	12	1877 (531)	216 (51)	23 (12)	0	2116
Campbell Alb.	2	1	388	0	0	0	388
Buller's Alb.	10	3	363	53	71	164	651
Shy Alb.	3	3	116 (52)	35 (30)	29	0	180
White-capped Alb.	6	3	277 (75)	0	5	35	317
Chatham Alb.	1	1	38	31	2	0	71
Salvin's Alb.	13	2	45	50 (50)	0	23	118
Southern Giant Petrel	127	9	220 (85)	85 (23)	162 (144)	0	467
Northern Giant Petrel	51	5	108	72 (41)	153 (148)	0	333
White-chinned Petrel	76	5	131 (57)	44 (34)	12 (12)	28	215
Spectacled Petrel	2	2	8	0	0	5	13
Parkinson's Petrel	2	2	144 (79)	0	0	15	159
Westland Petrel	1	1	43 (15)	8	0	0	51
Grey Petrel	17	4	35 (10)	15 (15)	4 (4)	24	78
Balearic Shearwater	5	4	29	28	7	39	103

2. TRACKING DATA GAP ANALYSIS

2.1. Methods

The identification of the major gaps in seabird tracking studies was made based on the metadata table mentioned in section 1, and on the most up to date estimates of population abundance in each colony. Despite the literature review and contact with experts, it is important to highlight that some studies may have been missed from the metadata table presented here; nonetheless, every effort was made to identify new data collected (i.e., in new colonies and/or new life-history stages) and thus, minimize the risk of identifying sites as gaps that are already being targeted for study.

Most analyses were focused on the colonies holding at least 1% of the world population of each species. For data not submitted to TOW it was not possible, in many cases, to derive the exact number of tracking days; therefore, the analyses were mainly focused on the number of tracks (see Table 2) or on the number of colonies with tracking data. In some cases it was also not possible to distinguish between breeding and non-breeding tracks; as this happened mostly in studies about wintering ecology using GLS devices, we considered these as “non-breeding” tracks. Data collected for immature and juvenile birds were pooled together (hereafter “young” birds). All analyses were conducted in R (<http://www.r-project.org/>).

2.2. Results

2.2.1. Overall results

Black-browed, Wandering, Grey-headed and Buller’s albatross stand out from all the other species in terms of the total number of tracks (all with more than 600, covering different life-history stages; Table 2). Giant petrels are also well covered in terms of total number of tracks, but less so in terms of percentage of colonies with tracking data (Table 3). In contrast, the Southern Royal Albatross and the Spectacled Petrel all have less than 30 tracks in total, almost all collected only during the breeding season (Table 2).

Species with more widespread distributions (i.e., more than 8 colonies holding > 1% of the population) are generally those with a lesser percentage of overall coverage (< 33%), with the exception of Wandering, Light-mantled and Black-browed albatross (Table 3). All limited-range species (4 or less colonies holding > 1% of the population) have tracking data for, at least, 50% of the sites (Table 3).

Table 3: Percentage of colonies (> 1%) with tracking studies, and percentage of tracks collected in colonies holding more than 1% of the world population of each species. In grey – species with less than one third of the colonies studied.

Species	N tot cols > 1%	N cols > 1% with tracking data	% of colonies w tracking data	Total number of tracks	Total number of tracks in colonies > 1%	% of tracks in colonies > 1%
Northern Royal Alb.	3	2	67	90	25	28
Southern Royal Alb.	1	1	100	21	21	100
Wandering Alb.	12	4	33	1952	1937	99
Antipodean Alb.	3	2	67	163	162	99
Amsterdam Alb.	1	1	100	100	100	100
Tristan Alb.	1	1	100	190	190	100
Sooty Alb.	10	4	40	219	162	74
Light-mantled Alb.	10	4	40	169	78	46
Waved Alb.	1	1	100	81	76	94
Black-footed Alb.	8	2	25	255	222	87
Laysan Alb.	5	2	40	356	53	15
Short-tailed Alb.	2	1	50	61	52	85
Atlantic Yellow-nosed Alb.	4	2	50	150	150	100
Indian Yellow-nosed Alb.	4	2	50	85	85	100
Grey-headed Alb.	15	4	27	761	750	99
Black-browed Alb.	18	8	44	2116	1683	80
Campbell Alb.	1	1	100	388	388	100
Buller's Alb.	7	3	43	651	651	100
Shy Alb.	3	3	100	180	180	100
White-capped Alb.	2	2	100	317	312	98
Chatham Alb.	1	1	100	71	71	100
Salvin's Alb.	9	2	22	118	118	100
Southern Giant Petrel	29	6	21	467	379	81
Northern Giant Petrel	21	5	24	333	333	100
White-chinned Petrel	10	1	10	215	63	29
Spectacled Petrel	1	1	100	13	8	62
Parkinson's Petrel	2	2	100	159	159	100
Westland Petrel	1	1	100	51	51	100
Grey Petrel	4	3	75	78	78	97
Balearic Shearwater	5	4	80	103	103	100

2.2.2. Gaps in most abundant colonies

Most tracking studies have been conducted in colonies holding more than 1% of the world population, but with some exceptions – Northern Royal Albatross, Laysan Albatross and White-chinned Petrel (Table 3).

Forty two out of the 64 most abundant colonies (i.e., holding > 10% of a species) have at least one tracking study (Annex 2). The exceptions are listed in Table 4. A complete list of all sites holding > 1% of the world population without any tracking study can be found in Annex 4.

The location of the archipelagos/groups of sites with and without tracking data can be consulted in Annex 3.

Table 4: List of sites holding more than 10% of the world population of a species with no tracking data. A complete list of sites without any tracking data can be consulted in Annex 4.

Species	Group	Site
Wandering Albatross	Crozet	Ile aux Cochons
Wandering Albatross	Prince Edward Islands	Prince Edward Island
Northern Royal Albatross	Chatham Island	The Big Sister
Southern Giant Petrel	Falkland Islands (Islas Malvinas) ¹	Sandy Cay (Elephant Cays)
Laysan Albatross	Hawaii	Laysan Island
Black-footed Albatross	Hawaii	Laysan Island
Sooty Albatross	Crozet	Ile de l'Est
Sooty Albatross	Tristan da Cunha	Tristan da Cunha
Light-mantled Albatross	Auckland Islands	Adams Island
Light-mantled Albatross	Campbell Islands	Campbell Island
White-chinned Petrel	South Georgia (Islas Georgias del Sur) ¹	Barff / Península Barff
White-chinned Petrel	South Georgia (Islas Georgias del Sur) ¹	Northwest
White-chinned Petrel	South Georgia (Islas Georgias del Sur) ¹	Nunez / Cabo Nuñez
Balearic Shearwater	Balearic Archipelago	Cabrera
Indian Yellow-nosed Albatross	Crozet	Ile des Pingouins
Atlantic Yellow-nosed Albatross	Tristan da Cunha	Nightingale
Grey-headed Albatross	Islas Diego Ramirez	Isla Bartolome
Grey-headed Albatross	South Georgia (Islas Georgias del Sur) ¹	Paryadin Peninsula south
Black-browed Albatross	Falkland Islands (Islas Malvinas) ¹	Grand Jason / Salvaje del Este
Salvin's Albatross	Bounty Islands	Depot Island
Salvin's Albatross	Bounty Islands	Funnel Island
Salvin's Albatross	Bounty Islands	Ruatara Island

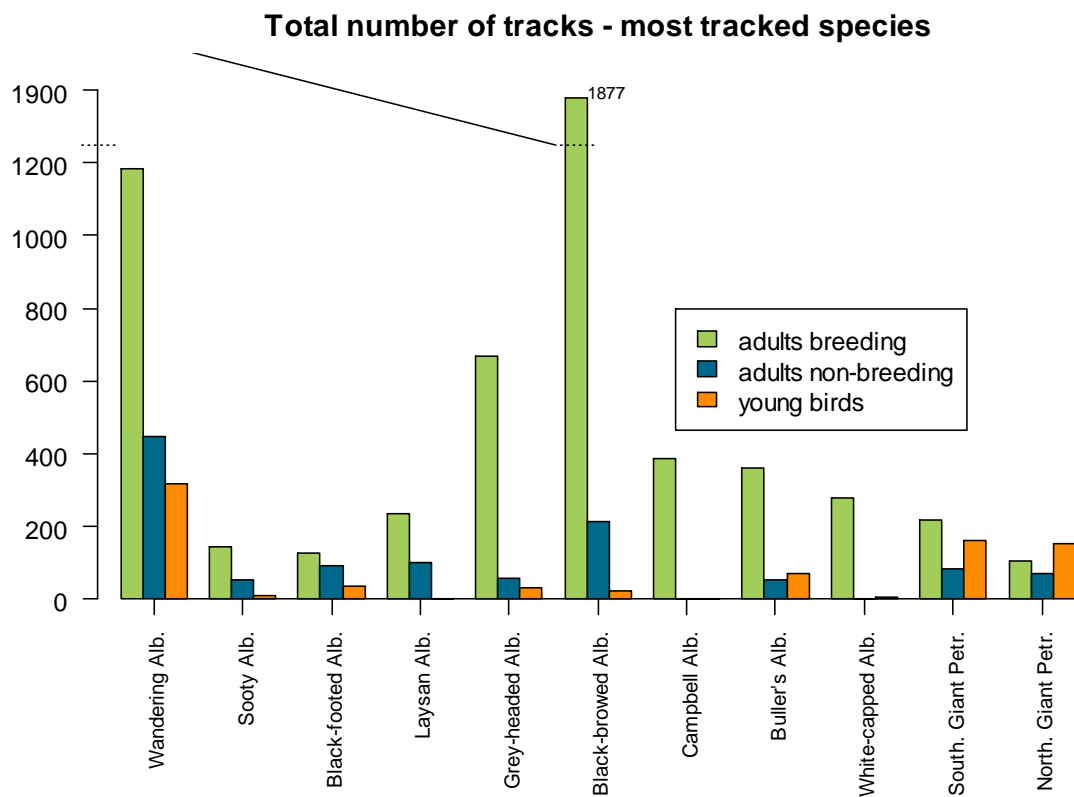
2.2.3. Gaps in life-history stages

¹ “A dispute exists between the Governments of Argentina and the United Kingdom of Great Britain and Northern Ireland concerning sovereignty over the Falkland Islands (Islas Malvinas), South Georgia and the South Sandwich Islands (Islas Georgias del Sur e Islas Sandwich del Sur) and the surrounding maritime areas”.

The great majority of studies have been focused on adults during the breeding season, and there are data collected during this phase for all species (Table 2 and Figures 1 and 2).

Most species are also relatively well covered during the non-breeding season, but there are still 6 species with no data during this period (Southern Royal, Waved, Campbell and White-capped albatross, and Spectacled and Parkinson's petrel; Table 2 and Figures 1 and 2; but note that this might exclude some data for which the age/stage is tagged as unknown in the TOW database and/or data reported as "breeding" by the data-owners but covering also the non-breeding season).

The major gaps in terms of life-history coverage are in studies focusing on immatures and juveniles, with the exception of Wandering albatross, Black-footed albatross, Grey-headed albatross, Buller's albatross and both Giant petrels (all with at least 30 tracks collected from young birds; Table 2).



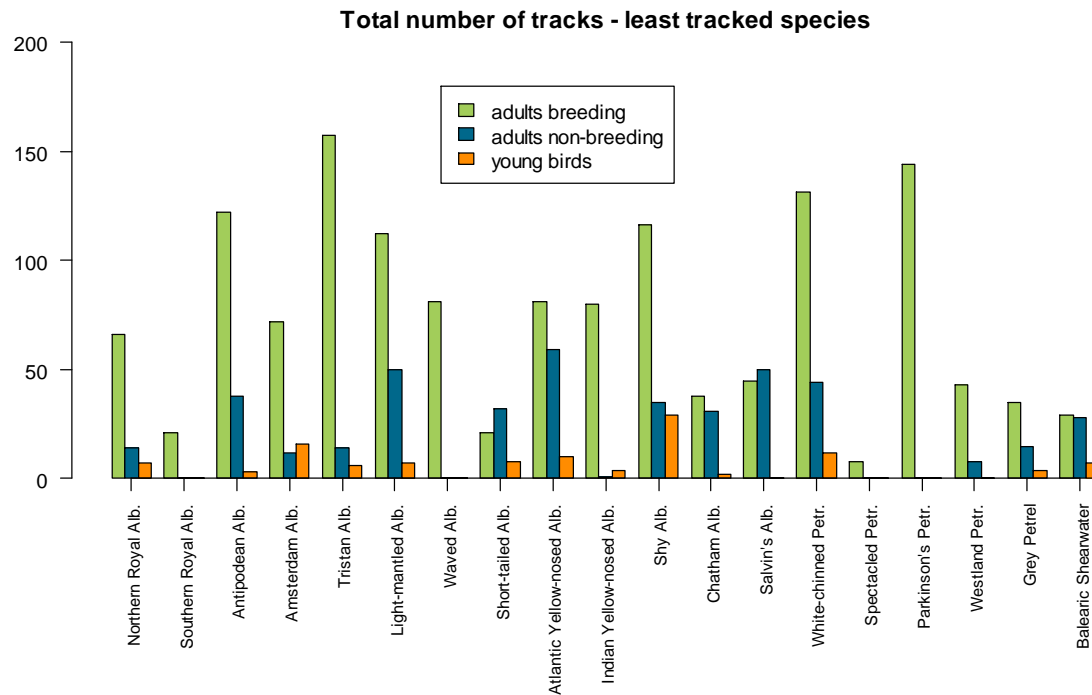
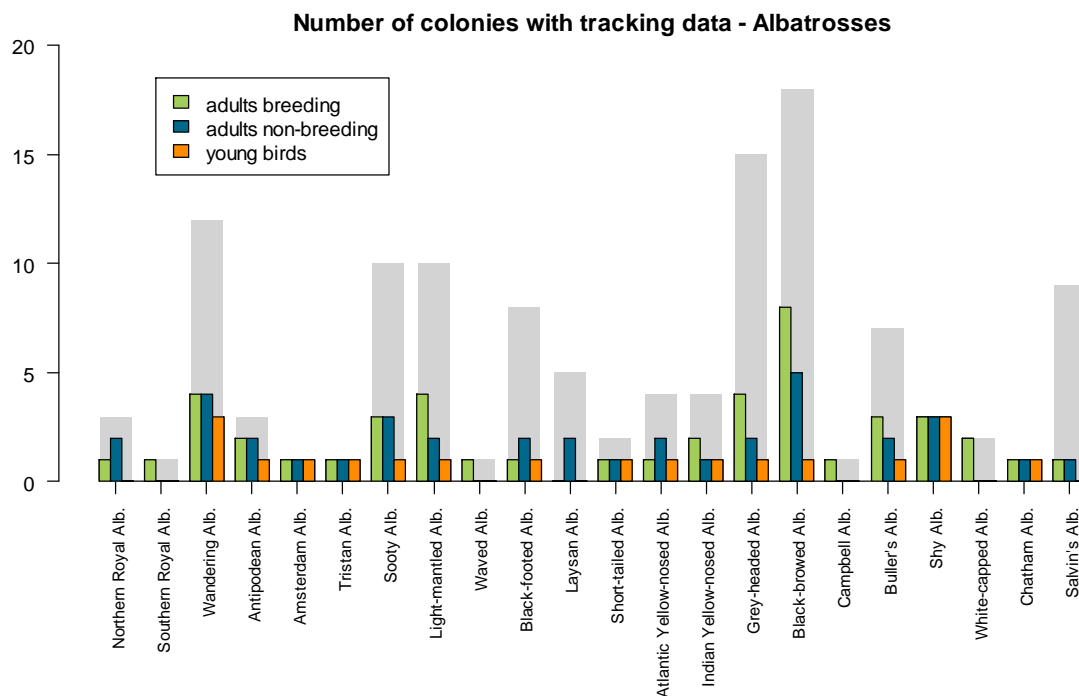


Figure 1: Total number of individual tracks collected in different life-history stages. Data collected in unknown breeding status or age not included. Note different y scales.



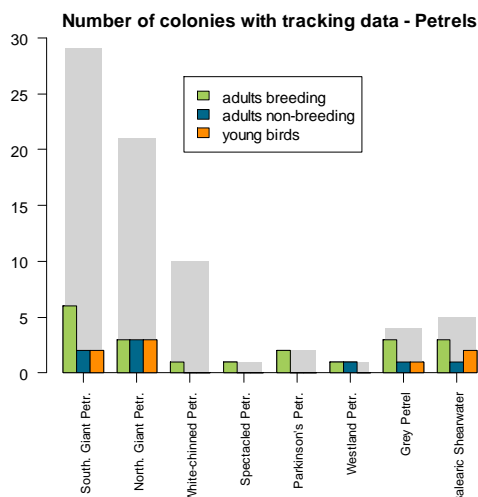


Figure 2: Number of most abundant sites (> 1%) with tracking studies in different life-history stages. Grey bars: total number of sites holding > 1% of the species' population. Data collected in unknown breeding status or age not included. Note different y scales.

3. CONCLUSIONS

This paper summarizes, for the first time, all the tracking data collected so far for the albatross and petrel species listed under ACAP. This should be regarded as a first stage for the development of a comprehensive metadata table for all seabird tracking data, a tool that ultimately aims to assess where major gaps in knowledge of the at-sea distribution of these species occur. However, in order to improve the quality of any gap analysis that can be conducted, it is imperative to ensure the cooperation and information-sharing among seabird researchers using tracking data in their studies and BirdLife International.

We also present a first assessment of the major gaps in tracking studies for ACAP species. The results shown here should not be regarded as an exercise of identification of priorities for future tracking studies, as this should take into account several factors not considered here (e.g. conservation status, accessibility of the colonies for studies, representativeness of data, etc.). Nonetheless, it is possible to point out that some combinations of species and life-history stages are clearly understudied, with obvious examples being Southern Royal and Campbell albatross during the non-breeding season, and the young stages for almost one third of the species.

ANNEX 1

References with tracking data not included yet in the TOW database.

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ANNEX 2

Number of tracks/ tracking days per species and site. Shaded grey = sites holding more than 1% of the population. In bold = sites holding more than 10% of the population. 1*=deployments have been made in this colony, but exact number of tracks unknown. Note that the number of tracking days was not possible to obtain in many cases (i.e., almost all data not included in TOW; see Table 2), so these should be regarded as minimum values.

Species	Group	Site	Pop. (breed. pairs)	Pre- egg	Incuba- tion	Brood	Post- guard	Breeding (unknown stage)	Non- breeding (adults)	Imm/ juvs	Unknown ages or status	Adults (unknown status)
Northern Royal Alb.	Chatham Island	The Forty-fours	2692	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	5 / 1210.1	0 / 0	0 / 0	0 / 0
Northern Royal Alb.	Chatham Island	The Little (Middle) Sister	1159	0 / 0	9 / 324.3	0 / 0	0 / 0	4 / 329.5	7 / 1173.7	0 / 0	0 / 0	0 / 0
Northern Royal Alb.	New Zealand	Taiaroa Head	36	0 / 0	52 / 402	0 / 0	0 / 0	1 / 5	2 / 255.1	7 / 1306.3	3 / 2088.4	0 / 0
Southern Royal Alb.	Campbell Islands	Campbell Island	7855	0 / 0	17 / 249.5	0 / 0	0 / 0	4 / 0	0 / 0	0 / 0	0 / 0	0 / 0
Wandering Alb.	Macquarie Island	Macquarie Island	6	0 / 0	4 / 233.7	0 / 0	0 / 0	0 / 0	0 / 0	4 / 486.9	0 / 0	0 / 0
Wandering Alb.	South Georgia (Islas Georgias del Sur) ¹	Bird Island (SGSSI (IGSISS)) ¹ / Isla Pájaro	859	0 / 0	65 / 2305.4	85 / 1290	293 / 4501.6	0 / 0	251 / 8312	260 / 19607.7	0 / 0	0 / 0
Wandering Alb.	Crozet	Ile de la Possession	371	0 / 0	157 / 1681.7	13 / 48.4	34 / 445.4	432 / 0	187 / 0	36 / 2268.3	0 / 0	0 / 0
Wandering Alb.	Kerguelen	Courbet Peninsula	356	0 / 0	34 / 36	4 / 12	8 / 60.6	12 / 0	1 / 0	20 / 0	0 / 0	0 / 0
Wandering Alb.	At-Sea	At-Sea	NA	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	7 / 508.4	0 / 0	0 / 0	0 / 0
Wandering Alb.	Prince Edward Islands	Marion Island	2050	0 / 0	11 / 72.9	14 / 97.9	17 / 471.5	0 / 0	2 / 60.5	0 / 0	1 / 0	0 / 0
Antipodean Alb.	At-Sea	At-Sea	NA	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	1 / 70.5	0 / 0	0 / 0	0 / 0
Antipodean Alb.	Antipodes Islands	Antipodes Island	4565	6 / 322.2	36 / 1667.7	23 / 586.7	14 / 1197.9	0 / 0	15 / 1946.9	3 / 636.2	0 / 0	0 / 0
Antipodean Alb.	Auckland Islands	Adams Island	3277	8 / 394.3	18 / 787.5	9 / 209.7	7 / 699.5	1 / 19.4	22 / 2717.7	0 / 0	0 / 0	0 / 0
Amsterdam Alb.	Amsterdam and St Paul	Plateau des tourbieres	31	0 / 0	32 / 231.6	30 / 0	10 / 0	0 / 0	12 / 0	16 / 327.1	0 / 0	0 / 0
Tristan Alb.	Gough	Gough Island	1650	10 / 0	26 / 409.3	28 / 55.3	93 / 1703.3	0 / 0	14 / 4001.3	6 / 0	13 / 7834.6	0 / 0

Species	Group	Site	Pop. (breed. pairs)	Pre- egg	Incuba- tion	Brood	Post- guard	Breeding (unknown stage)	Non- breeding (adults)	Imm/ juvs	Unknown ages or status	Adults (unknown status)
Sooty Alb.	Amsterdam and St Paul	Ile Amsterdam	394	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	17 / 0	5 / 1267.9	0 / 0	0 / 0
Sooty Alb.	Crozet	Ile de la Possession	81	0 / 0	9 / 0	0 / 0	0 / 0	32 / 408.8	16 / 0	0 / 0	0 / 0	0 / 0
Sooty Alb.	Prince Edward Islands	Marion Island	1469	0 / 0	30 / 0	30 / 0	0 / 0	10 / 1315.8	2 / 214.1	0 / 0	0 / 0	0 / 0
Sooty Alb.	Gough	Gough Island	3750	0 / 0	7 / 143.8	12 / 247.5	10 / 1466.3	6 / 955	21 / 4067.1	5 / 0	6 / 1269.2	0 / 0
Sooty Alb.	Tristan da Cunha	Inaccessible Island	501	0 / 0	0 / 0	0 / 0	0 / 0	1* / 0	0 / 0	0 / 0	0 / 0	0 / 0
Light-mantled Alb.	Heard and McDonald Islands	Heard Island	350	0 / 0	0 / 0	0 / 0	0 / 0	6 / 274.8	0 / 0	0 / 0	0 / 0	0 / 0
Light-mantled Alb.	Macquarie Island	Macquarie Island	2125	0 / 0	10 / 158	4 / 56.7	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0
Light-mantled Alb.	South Georgia (Islas Georgias del Sur) ¹	Bird Island (SGSSI (IGSISS)) ¹ /Isla Pájaro	63	0 / 0	0 / 0	0 / 0	42 / 202.8	0 / 0	34 / 0	0 / 0	0 / 0	0 / 0
Light-mantled Alb.	Crozet	Ile de la Possession	1019	0 / 0	0 / 0	0 / 0	5 / 0	3 / 0	7 / 0	3 / 0	0 / 0	0 / 0
Light-mantled Alb.	Kerguelen	Golfe du Morbihan	NA	0 / 0	0 / 0	0 / 0	4 / 0	0 / 0	7 / 0	4 / 0	0 / 0	0 / 0
Light-mantled Alb.	Prince Edward Islands	Marion Island	316	0 / 0	15 / 0	15 / 0	0 / 0	8 / 1195	2 / 348.2	0 / 0	0 / 0	0 / 0
Waved Alb.	Galapagos	Isla Espanola	9607	0 / 0	28 / 809	25 / 194	0 / 0	23 / 780.3	0 / 0	0 / 0	0 / 0	0 / 0
Waved Alb.	Isla de La Plata	Isla de La Plata	5.5	0 / 0	0 / 0	0 / 0	0 / 0	5 / 388	0 / 0	0 / 0	0 / 0	0 / 0
Black-footed Alb.	At-Sea	At-Sea	NA	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	20 / 618.3	13 / 534.2	0 / 0	0 / 0
Black-footed Alb.	Hawaii	French Frigate Shoals	4944	0 / 0	47 / 616.8	61 / 265.4	12 / 576.7	9 / 557.8	25 / 4059.9	0 / 0	0 / 0	0 / 0
Black-footed Alb.	Hawaii	Midway Atoll	27498	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	22 / 644.8	0 / 0	46 / 0
Laysan Alb.	At-Sea	At-Sea	NA	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	18 / 1091.9	0 / 0
Laysan Alb.	Isla Guadalupe	Isla Guadalupe	562	0 / 0	25 / 186.4	72 / 298.7	4 / 81.1	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0
Laysan Alb.	Hawaii	French Frigate Shoals	3063	0 / 0	48 / 886.3	71 / 487.2	15 / 866.5	0 / 0	40 / 5512.9	0 / 0	0 / 0	0 / 0
Laysan Alb.	Hawaii	Kure Atoll	24366	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	11 / 0

Species	Group	Site	Pop. (breed. pairs)	Pre- egg	Incuba- tion	Brood	Post- guard	Breeding (unknown stage)	Non- breeding (adults)	Imm/ juvs	Unknown ages or status	Adults (unknown status)
Laysan Alb.	Hawaii	Midway Atoll	479526	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	42 / 0
Laysan Alb.	Hawaii	O'ahu	107	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	10 / 0
Short tailed Alb.	At-Sea	At-Sea	NA	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	3 / 174.1	6 / 556.2	0 / 0	0 / 0
Short-tailed Alb.	Izu Shoto	Torishima	538	0 / 0	0 / 0	0 / 0	21 / 1590.3	0 / 0	29 / 2056.8	2 / 195.3	0 / 0	0 / 0
Atlantic Yellow-nosed Alb.	Gough	Gough Island	5300	3 / 43	34 / 1831.9	24 / 419.6	20 / 1940.8	0 / 0	39 / 8137.4	5 / 0	0 / 0	0 / 0
Atlantic Yellow-nosed Alb.	Tristan da Cunha	Tristan da Cunha	23000	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	5 / 0	0 / 0	20 / 0
Indian Yellow- nosed Alb.	Amsterdam and St Paul	Falaise d'Entrecasteaux	27000	0 / 0	20 / 258.2	17 / 72.1	0 / 0	25 / 277.3	1 / 2.6	4 / 0	0 / 0	0 / 0
Indian Yellow- nosed Alb.	Prince Edward Islands	Prince Edward Island	5234	0 / 0	0 / 0	0 / 0	0 / 0	18 / 331.1	0 / 0	0 / 0	0 / 0	0 / 0
Grey-headed Alb.	Macquarie Island	Macquarie Island	69	0 / 0	6 / 126.4	3 / 51.4	0 / 0	0 / 0	0 / 0	1 / 51.3	0 / 0	0 / 0
Grey-headed Alb.	Islas Diego Ramirez	Isla Gonzalo	4122	0 / 0	37 / 554.7	18 / 227.7	11 / 161.2	0 / 0	1 / 6.9	0 / 0	0 / 0	0 / 0
Grey-headed Alb.	Islas Ildefonso	Isla Grande	8	0 / 0	1 / 24.5	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0
Grey-headed Alb.	South Georgia (Islas Georgias del Sur) ¹	Bird Island (SGSSI (IGSISS)) ¹ /Isla Pájaro	5120	0 / 0	28 / 337.2	127 / 211.7	205 / 927.1	34 / 750.3	56 / 10960.4	33 / 0	0 / 0	0 / 0
Grey-headed Alb.	Campbell Islands	Campbell Island	6600	0 / 0	0 / 0	0 / 0	5 / 53	99 / 0	0 / 0	0 / 0	0 / 0	0 / 0
Grey-headed Alb.	Prince Edward Islands	Marion Island	8807	0 / 0	49 / 55.9	45 / 0	0 / 0	2 / 22.9	0 / 0	0 / 0	0 / 0	0 / 0
Black-browed Alb.	Heard and McDonald Islands	Heard Island	600	0 / 0	0 / 0	0 / 0	0 / 0	10 / 472.9	0 / 0	0 / 0	0 / 0	0 / 0
Black-browed Alb.	Macquarie Island	Macquarie Island	42	0 / 0	6 / 163	1 / 17.9	0 / 0	0 / 0	0 / 0	2 / 179.8	0 / 0	0 / 0
Black-browed Alb.	Diego de Almagro	Isla Diego de Almagro	15594	0 / 0	13 / 171.4	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0
Black-browed Alb.	Islas Diego Ramirez	Isla Gonzalo	6897	0 / 0	70 / 586.4	33 / 298.1	23 / 333.5	10 / 356.4	5 / 613.7	0 / 0	0 / 0	0 / 0

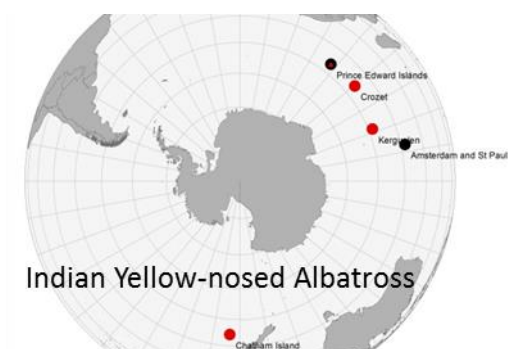
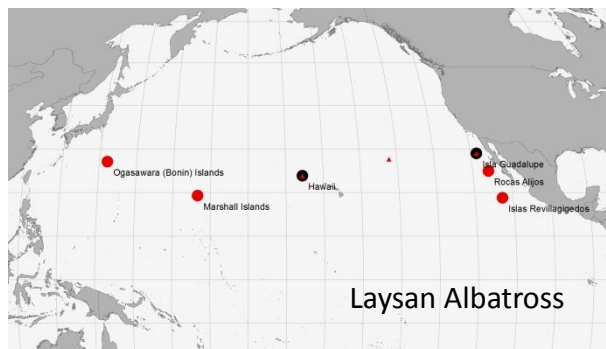
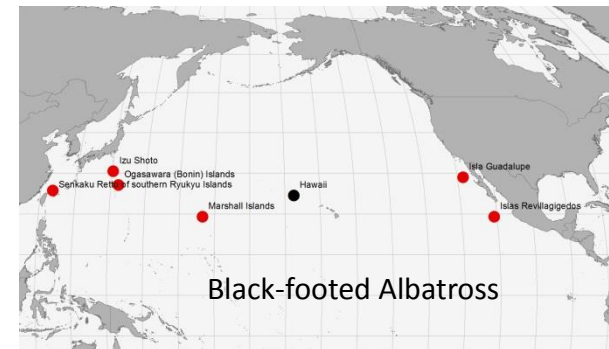
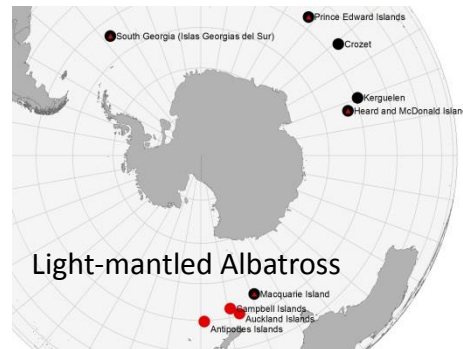
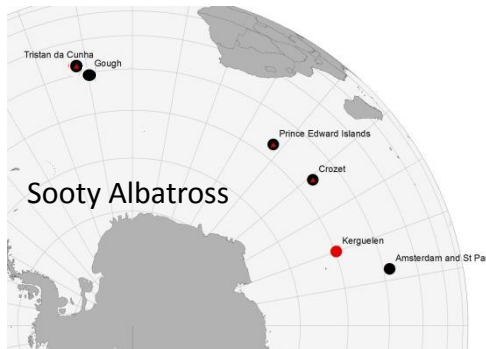
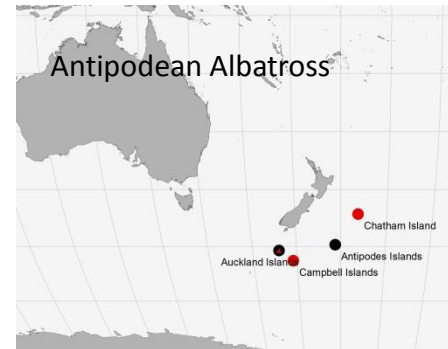
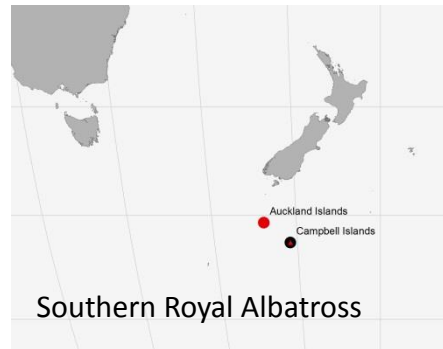
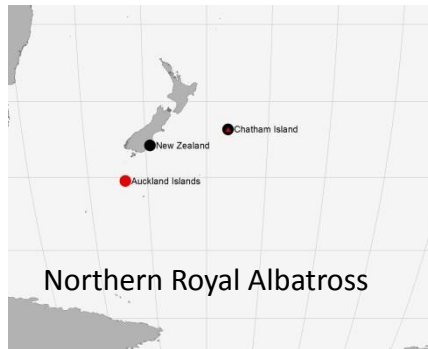
Species	Group	Site	Pop. (breed. pairs)	Pre- egg	Incuba- tion	Brood	Post- guard	Breeding (unknown stage)	Non- breeding (adults)	Imm/ juvs	Unknown ages or status	Adults (unknown status)
Black-browed Alb.	Islas Ildefonso	Isla Grande	27106	0 / 0	26 / 273.2	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0
Black-browed Alb.	Falkland Islands (Islas Malvinas) ¹	Beauchene Island/ Isla Beauchêne	105777	0 / 0	11 / 110.9	0 / 0	48 / 144.3	0 / 0	1 / 29.5	0 / 0	0 / 0	0 / 0
Black-browed Alb.	Falkland Islands (Islas Malvinas) ¹	New Island/ Isla Goicoechea	13343	0 / 0	27 / 117.5	331 / 2957.4	0 / 0	0 / 0	6 / 771.2	0 / 0	0 / 0	0 / 0
Black-browed Alb.	Falkland Islands (Islas Malvinas) ¹	Saunders Island/ Isla Trinidad	16722	23 / 212.4	49 / 1803.5	0 / 0	117 / 216.7	28 / 2402.5	36 / 5014.3	0 / 0	0 / 0	0 / 0
Black-browed Alb.	Falkland Islands (Islas Malvinas) ¹	Steeple Jason/ Salvaje del Oeste	183135	0 / 0	8 / 64	106 / 3504.1	2 / 4.7	0 / 0	0 / 0	3 / 300.4	0 / 0	0 / 0
Black-browed Alb.	South Georgia (Islas Georgias del Sur) ¹	Bird Island (SGSSI (IGSISS)) ¹ / Isla Pájaro	8264	39 / 623.3	49 / 619.9	91 / 46.5	349 / 863.6	24 / 626.3	155 / 10615.8	0 / 0	0 / 0	0 / 0
Black-browed Alb.	Kerguelen	Jeanne d'Arc Peninsula	1081	0 / 0	9 / 89.1	0 / 0	49 / 247.4	325 / 0	0 / 0	12 / 0	0 / 0	0 / 0
Black-browed Alb.	At-Sea	At-Sea	NA	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	13 / 585.4	6 / 369.5	0 / 0	0 / 0
Campbell Alb.	Campbell Islands	Campbell Island	22093	0 / 0	0 / 0	0 / 0	0 / 0	388 / 128.5	0 / 0	0 / 0	0 / 0	0 / 0
Buller's Alb.	Chatham Island	The Forty-fours	14185	0 / 0	2 / 10.1	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0
Buller's Alb.	Solander Islands	Great Solander Island	4579	0 / 0	11 / 159.4	18 / 76.3	18 / 136.1	0 / 0	10 / 70.6	0 / 0	129 / 406.8	0 / 0
Buller's Alb.	The Snares	North-East Island	7898	32 / 130.2	39 / 554.2	141 / 638.2	35 / 366.1	67 / 6267	43 / 154.9	71 / 328.3	35 / 5550.5	0 / 0
Shy Alb.	Tasmania	Albatross Island (AU)	4859	0 / 0	41 / 479.2	2 / 61.2	15 / 183	52 / 0	0 / 0	13 / 703.8	0 / 0	20 / 0
Shy Alb.	Tasmania	Pedra Branca	192	0 / 0	4 / 137.6	0 / 0	0 / 0	0 / 0	2 / 56.4	5 / 125	0 / 0	0 / 0
Shy Alb.	Tasmania	The Mewstone	10000	0 / 0	2 / 242.5	0 / 0	0 / 0	0 / 0	3 / 232.5	11 / 226	0 / 0	10 / 0
White-capped Alb.	At-Sea	At-Sea	NA	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	5 / 441	0 / 0	0 / 0
White-capped Alb.	Auckland Islands	Auckland Island	5592	0 / 0	0 / 0	52 / 47.1	38 / 231.1	50 / 0	0 / 0	0 / 0	1 / 71	0 / 0
White-capped Alb.	Auckland Islands	Disappointment Island	94727	0 / 0	27 / 292.7	40 / 103.8	22 / 191.7	48 / 4211.5	0 / 0	0 / 0	34 / 7364.8	0 / 0
Chatham Alb.	Chatham Island	The Pyramid	5245	0 / 0	0 / 0	0 / 0	0 / 0	38 / 1953.1	31 / 3455.1	2 / 85.8	0 / 0	0 / 0
Salvin's Alb.	Bounty Islands	Proclamation Island	2851	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	50 / 0

Species	Group	Site	Pop. (breed. pairs)	Pre- egg	Incuba- tion	Brood	Post- guard	Breeding (unknown stage)	Non- breeding (adults)	Imm/ juvs	Unknown ages or status	Adults (unknown status)
Salvin's Alb.	The Snares	Toru Islet	829	0 / 0	0 / 0	0 / 0	0 / 0	45 / 4016.8	0 / 0	0 / 0	23 / 4013.7	0 / 0
Southern Giant Petrel	Palmer Archipelago	Anvers Island/ Isla Amberes	582	0 / 0	0 / 0	0 / 0	0 / 0	72 / 2016	0 / 0	0 / 0	0 / 0	0 / 0
Southern Giant Petrel	Isla de los Estados	Isla Observatorio	500	0 / 0	0 / 0	0 / 0	7 / 208.4	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0
Southern Giant Petrel	North Patagonia	Isla Arce	438	0 / 0	0 / 0	8 / 197.4	0 / 0	0 / 0	0 / 0	4 / 270.3	0 / 0	0 / 0
Southern Giant Petrel	North Patagonia	Isla Gran Robredo	1700	0 / 0	2 / 124.8	2 / 65.9	0 / 0	0 / 0	6 / 747.6	7 / 407.3	0 / 0	0 / 0
Southern Giant Petrel	Macquarie Island	Macquarie Island	1859	0 / 0	0 / 0	3 / 30.9	3 / 137.4	0 / 0	0 / 0	7 / 442	0 / 0	0 / 0
Southern Giant Petrel	South Georgia (Islas Georgias del Sur) ¹	Bird Island (SGSSI (IGSISS)) ¹ /Isla Pájaro	521	0 / 0	56 / 2143.4	17 / 308.1	16 / 1456.8	0 / 0	37 / 8584.1	139 / 0	0 / 0	0 / 0
Southern Giant Petrel	Crozet	Ile de la Possession	261	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	5 / 0	0 / 0	23 / 0
Southern Giant Petrel	Prince Edward Islands	Marion Island	1583	0 / 0	0 / 0	0 / 0	0 / 0	5 / 528	0 / 0	0 / 0	0 / 0	0 / 0
Southern Giant Petrel	Gough	Gough Island	222	0 / 0	0 / 0	0 / 0	0 / 0	29 / 6478.1	19 / 2418.6	0 / 0	0 / 0	0 / 0
Northern Giant Petrel	Macquarie Island	Macquarie Island	1392	0 / 0	0 / 0	0 / 0	0 / 0	4 / 102.7	0 / 0	5 / 214.8	0 / 0	0 / 0
Northern Giant Petrel	South Georgia (Islas Georgias del Sur)¹	Bird Island (SGSSI (IGSISS))¹/Isla Pájaro	2062	0 / 0	52 / 903.6	26 / 727.8	21 / 1248.6	0 / 0	31 / 6395.7	136 / 0	0 / 0	0 / 0
Northern Giant Petrel	Crozet	Ile de la Possession	474	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	5 / 0	0 / 0	23 / 0
Northern Giant Petrel	Kerguelen	Courbet Peninsula	750	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	7 / 0	0 / 0	18 / 0
Northern Giant Petrel	Prince Edward Islands	Marion Island	443	0 / 0	0 / 0	0 / 0	0 / 0	5 / 387.6	0 / 0	0 / 0	0 / 0	0 / 0
White-chinned Petrel	South Georgia (Islas Georgias del Sur) ¹	Bird Island (SGSSI (IGSISS)) ¹ /Isla Pájaro	NA	0 / 0	19 / 50.6	0 / 0	0 / 0	19 / 93	20 / 2343.1	0 / 0	0 / 0	0 / 0
White-chinned Petrel	Crozet	Ile de la Possession	5783	0 / 0	9 / 99.5	0 / 0	0 / 0	7 / 94.1	0 / 0	4 / 0	0 / 0	0 / 0
White-chinned Petrel	Kerguelen	Jeanne d'Arc Peninsula	NA	0 / 0	0 / 0	0 / 0	0 / 0	21 / 0	0 / 0	8 / 0	0 / 0	0 / 0
White-chinned	Kerguelen	Ronarc'h Peninsula	NA	0 / 0	7 / 0	0 / 0	14 / 0	0 / 0	0 / 0	0 / 0	0 / 0	24 / 0

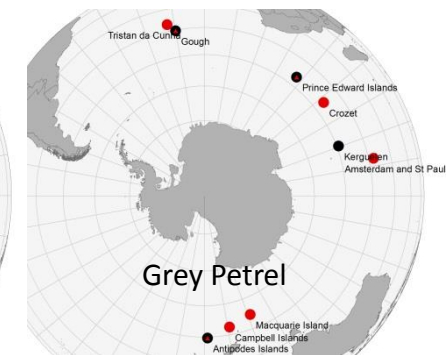
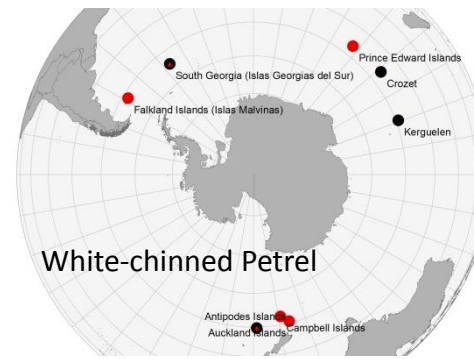
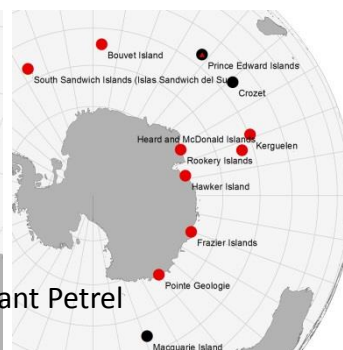
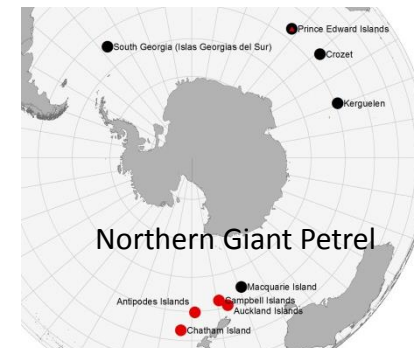
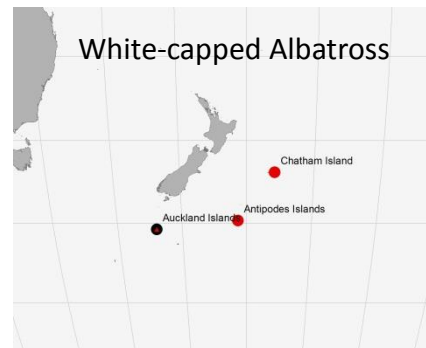
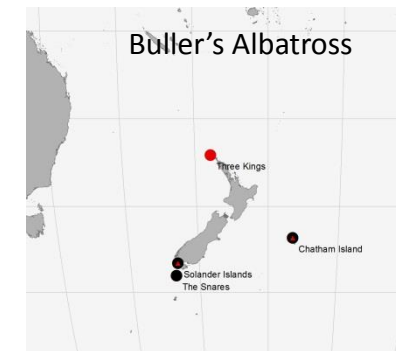
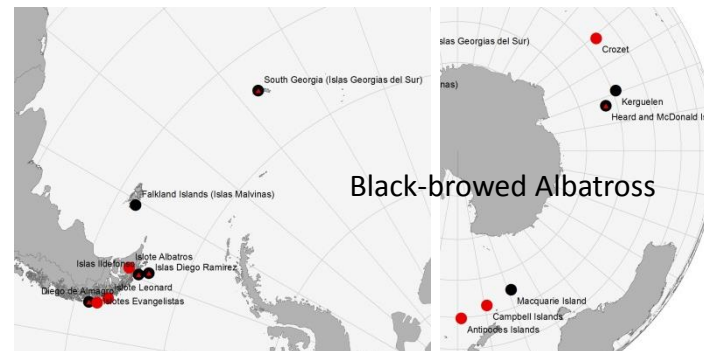
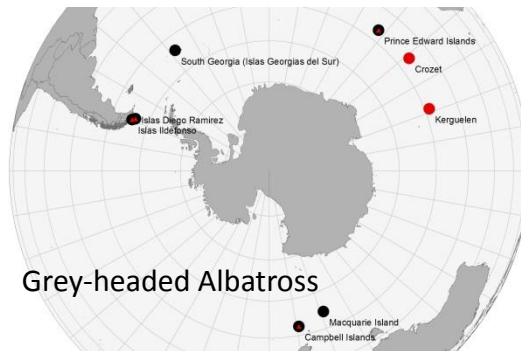
Species	Group	Site	Pop. (breed. pairs)	Pre- egg	Incuba- tion	Brood	Post- guard	Breeding (unknown stage)	Non- breeding (adults)	Imm/ juvs	Unknown ages or status	Adults (unknown status)
Petrel												
White-chinned Petrel	Antipodes Islands	Antipodes Island	58725	0 / 0	0 / 0	0 / 0	0 / 0	35 / 2232.2	0 / 0	0 / 0	28 / 5215.9	0 / 0
Spectacled Petrel	At-Sea	At-Sea	NA	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	5 / 116.4	0 / 0
Spectacled Petrel	Tristan da Cunha	Inaccessible Island	14400	0 / 0	0 / 0	0 / 0	0 / 0	8 / 1022.2	0 / 0	0 / 0	0 / 0	0 / 0
Parkinson's Petrel	New Zealand	Great Barrier Island	1477	0 / 0	75 / 3920	0 / 0	44 / 47	15 / 1076	0 / 0	0 / 0	12 / 1981	0 / 0
Parkinson's Petrel	New Zealand	Little Barrier Island	100	0 / 0	6 / 438	0 / 0	0 / 0	4 / 219	0 / 0	0 / 0	3 / 471	0 / 0
Westland Petrel	New Zealand	Punakaiki	2827	0 / 0	15 / 0	0 / 0	20 / 106	8 / 1890	8 / 1096	0 / 0	0 / 0	0 / 0
Grey Petrel	Kerguelen	Golfe du Morbihan	3400	0 / 0	7 / 0	0 / 0	0 / 0	0 / 0	0 / 0	4 / 0	0 / 0	15 / 0
Grey Petrel	Antipodes Islands	Antipodes Island	48960	0 / 0	0 / 0	0 / 0	0 / 0	25 / 2718.5	0 / 0	0 / 0	24 / 3362.4	0 / 0
Grey Petrel	Prince Edward Islands	Marion Island	NA	0 / 0	2 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0
Grey Petrel	Gough	Gough Island	17500	0 / 0	0 / 0	0 / 0	0 / 0	1* / 0	0 / 0	0 / 0	0 / 0	0 / 0
Balearic Shearwater	Balearic Archipelago	Formentera	650	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	2 / 18.8	0 / 0	0 / 0
Balearic Shearwater	Balearic Archipelago	Ibiza	550	0 / 0	0 / 0	0 / 0	6 / 178.4	12 / 51.5	0 / 0	5 / 41.8	39 / 0	0 / 0
Balearic Shearwater	Balearic Archipelago	Mallorca	900	0 / 0	0 / 0	0 / 0	4 / 88.2	0 / 0	2 / 53.7	0 / 0	0 / 0	26 / 0
Balearic Shearwater	Balearic Archipelago	Menorca	405	0 / 0	0 / 0	0 / 0	7 / 190.2	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0

ANNEX 3

Groups of islands/sites with (black) and without (red) tracking data. Red triangles = no tracking data for young birds. Only species with no tracking data (all ages combined) for at least one group of islands/sites are shown.



ANNEX 3 (CONT)



ANNEX 4

List of sites holding more than 1% of the population without any tracking studies (sorted by Jurisdiction). Shaded grey = sites with more than 5%. Bold = sites with more than 10% (summarized also in Table 4). Other sites in the group = whether there are other colonies in the same group of islands that have been studied.

Species	Jurisdiction	Island group	Site	Population	other sites in the group
Southern Giant Petrel	Antarctic	Elephant Island /Isla Elefante	Elephant Island /Isla Elefante	845	0
Southern Giant Petrel	Antarctic	South Orkney Islands / Islas Orcadas del Sur	Laurie Island/ Isla Laurie	624	0
Southern Giant Petrel	Antarctic	South Orkney Islands/ Islas Orcadas del Sur	Powell Island / Isla Powell	613	0
Southern Giant Petrel	Antarctic	South Orkney Islands/ Islas Orcadas del Sur	Signy Island/ Isla Signy	1093	0
Southern Giant Petrel	Antarctic	South Shetland Islands / Islas Shetland del Sur	King George Island/ Isla 25 de Mayo	1663	0
Southern Giant Petrel	Antarctic	South Shetland Islands / Islas Shetland del Sur	Nelson Island/ Isla Nelson	824	0
Southern Giant Petrel	Antarctic	South Shetland Islands / Islas Shetland del Sur	Penguin Island / Isla Pingüino	634	0
Southern Giant Petrel	Australia	Heard and McDonald Islands	Heard Island	3500	0
Southern Giant Petrel	Chile	Isla Noir	Isla Noir	1000	0
Black-browed Alb.	Chile	Islas Diego Ramirez	Isla Bartolome	43304	1
Grey-headed Alb.	Chile	Islas Diego Ramirez	Isla Bartolome	10880	1
Black-browed Alb.	Chile	Islas Ildefonso	Isla Norte	9648	1
Black-browed Alb.	Disputed	Falkland Islands (Islas Malvinas) ¹	Bird Island (Falklands/Malvinas) ¹	15719	1
Black-browed Alb.	Disputed	Falkland Islands (Islas Malvinas) ¹	Grand Jason/ Salvaje del Este	89489	1
Black-browed Alb.	Disputed	Falkland Islands (Islas Malvinas) ¹	North Island / Isla Norte	26812	1
Black-browed Alb.	Disputed	Falkland Islands (Islas Malvinas) ¹	West Point Island	16495	1
Southern Giant Petrel	Disputed	Falkland Islands (Islas Malvinas) ¹	Barren Island / Isla Pelada	1504	0
Southern Giant Petrel	Disputed	Falkland Islands (Islas Malvinas) ¹	George / Isla Jorge	602	0
Southern Giant Petrel	Disputed	Falkland Islands (Islas Malvinas) ¹	Golden Knob (Elephant Cays)	1019	0
Southern Giant Petrel	Disputed	Falkland Islands (Islas Malvinas) ¹	Governor (Beaver) / Isla San Rafael	723	0
Southern Giant Petrel	Disputed	Falkland Islands (Islas Malvinas) ¹	Grand Jason/ Salvaje del Este	762	0

Species	Jurisdiction	Island group	Site	Population	other sites in the group
Southern Giant Petrel	Disputed	Falkland Islands (Islas Malvinas) ¹	Penn (Beaver) / Isla Baja	1543	0
Southern Giant Petrel	Disputed	Falkland Islands (Islas Malvinas)¹	Sandy Cay (Elephant Cays)	10936	0
Southern Giant Petrel	Disputed	Falkland Islands (Islas Malvinas) ¹	Steeple Jason / Salvaje del Oeste	1841	0
Short-tailed Alb.	Disputed	Senkaku Retto of southern Ryukyu Islands	Minami-kojima	52	0
Black-browed Alb.	Disputed	South Georgia (Islas Georgias del Sur) ¹	Annenkov Island / Isla Annenkov	9398	1
Black-browed Alb.	Disputed	South Georgia (Islas Georgias del Sur) ¹	Cooper Island / Isla Cooper	10606	1
Black-browed Alb.	Disputed	South Georgia (Islas Georgias del Sur) ¹	Main Island / Isla Principal	14559	1
Black-browed Alb.	Disputed	South Georgia (Islas Georgias del Sur) ¹	Trinity Island / Isla Trinidad	13960	1
Grey-headed Alb.	Disputed	South Georgia (Islas Georgias del Sur) ¹	Hall Island / Isla Hall	2686	1
Grey-headed Alb.	Disputed	South Georgia (Islas Georgias del Sur) ¹	Main Island / Isla Principal	5177	1
Grey-headed Alb.	Disputed	South Georgia (Islas Georgias del Sur) ¹	Paryadin Peninsula north	6721	1
Grey-headed Alb.	Disputed	South Georgia (Islas Georgias del Sur)¹	Paryadin Peninsula south	22058	1
Grey-headed Alb.	Disputed	South Georgia (Islas Georgias del Sur) ¹	Sorn & Bernt coast	1625	1
Grey-headed Alb.	Disputed	South Georgia (Islas Georgias del Sur) ¹	Trinity Island/ Isla Trinidad	3309	1
Northern Giant Petrel	Disputed	South Georgia (Islas Georgias del Sur) ¹	Northwest	516	1
Northern Giant Petrel	Disputed	South Georgia (Islas Georgias del Sur) ¹	Nunez / Cabo Nuñez	324	1
Northern Giant Petrel	Disputed	South Georgia (Islas Georgias del Sur) ¹	Saddle Island / Isla Montura	192	1
Northern Giant Petrel	Disputed	South Georgia (Islas Georgias del Sur) ¹	South Coast	165	1
Southern Giant Petrel	Disputed	South Georgia (Islas Georgias del Sur) ¹	Barff / Península Barff	543	1
Southern Giant Petrel	Disputed	South Georgia (Islas Georgias del Sur) ¹	Northwest	703	1
Southern Giant Petrel	Disputed	South Georgia (Islas Georgias del Sur) ¹	South Coast	574	1
Wandering Alb.	Disputed	South Georgia (Islas Georgias del Sur) ¹	Albatross Island (SGSSI (IGSISS)) / Isla Albatros	144	1
Wandering Alb.	Disputed	South Georgia (Islas Georgias del Sur) ¹	Annenkov Island/ Isla Annenkov	193	1
Wandering Alb.	Disputed	South Georgia (Islas Georgias del Sur) ¹	Northwest	114	1
White-chinned Petrel	Disputed	South Georgia (Islas Georgias del Sur)¹	Barff/ Península Barff	119594	1
White-chinned Petrel	Disputed	South Georgia (Islas Georgias del Sur)¹	Northwest	146545	1
White-chinned Petrel	Disputed	South Georgia (Islas Georgias del Sur)¹	Nunez/ Cabo Nuñez	193838	1

Species	Jurisdiction	Island group	Site	Population	other sites in the group
White-chinned Petrel	Disputed	South Georgia (Islas Georgias del Sur) ¹	Salisbury	16365	1
White-chinned Petrel	Disputed	South Georgia (Islas Georgias del Sur) ¹	Southeast	43355	1
White-chinned Petrel	Disputed	South Georgia (Islas Georgias del Sur) ¹	Stromness and Cumberland / Bahía Stromness-Bahía Cumberland	64361	1
Southern Giant Petrel	Disputed	South Sandwich Islands (Islas Sandwich del Sur) ¹	Candlemas Island / Isla Candelaria	1818	0
Grey-headed Alb.	France	Crozet	Ile de l'Est	3750	0
Grey-headed Alb.	France	Crozet	Ile des Pingouins	2000	0
Grey Petrel	France	Crozet	Ile de l'Est	5500	0
Indian Yellow-nosed Alb.	France	Crozet	Ile des Apotres	1230	0
Indian Yellow-nosed Alb.	France	Crozet	Ile des Pingouins	5800	0
Light-mantled Alb.	France	Crozet	Ile de l'Est	900	1
Light-mantled Alb.	France	Crozet	Ile des Apotres	150	1
Northern Giant Petrel	France	Crozet	Ile aux Cochons	275	0
Northern Giant Petrel	France	Crozet	Ile de l'Est	190	0
Northern Giant Petrel	France	Crozet	Ile des Apotres	150	0
Northern Giant Petrel	France	Crozet	Ile des Pingouins	165	0
Sooty Alb.	France	Crozet	Ile aux Cochons	450	1
Sooty Alb.	France	Crozet	Ile de l'Est	1300	1
Sooty Alb.	France	Crozet	Ile des Pingouins	250	1
Southern Giant Petrel	France	Crozet	Ile aux Cochons	575	0
Wandering Alb.	France	Crozet	Ile aux Cochons	1060	1
Wandering Alb.	France	Crozet	Ile de l'Est	329	1
Wandering Alb.	France	Crozet	Ile des Apotres	120	1
White-chinned Petrel	France	Crozet	Ile de l'Est	33144.5	1
Grey-headed Alb.	France	Kerguelen	Iles Nuageuses	7860	0
Northern Giant Petrel	France	Kerguelen	Baie Larose	125	0
Northern Giant Petrel	France	Kerguelen	Golfe du Morbihan	150	0

Species	Jurisdiction	Island group	Site	Population	other sites in the group
Northern Giant Petrel	France	Kerguelen	Rallier du Baty Peninsula	550	0
Wandering Alb.	France	Kerguelen	Rallier du Baty Peninsula	750	1
Black-footed Alb.	Japan	Izu Shoto	Torishima	2060	0
Black-footed Alb.	Japan	Ogasawara (Bonin) Islands	Nakodo-jima	967	0
Light-mantled Alb.	New Zealand	Antipodes Islands	Antipodes Island	250	0
Northern Giant Petrel	New Zealand	Antipodes Islands	Antipodes Island	233	0
Antipodean Alb.	New Zealand	Auckland Islands	Disappointment Island	352	1
Light-mantled Alb.	New Zealand	Auckland Islands	Adams Island	5000	0
White-chinned Petrel	New Zealand	Auckland Islands	Disappointment Island	1.00E+05	0
Salvin's Alb.	New Zealand	Bounty Islands	Depot Island	16139	1
Salvin's Alb.	New Zealand	Bounty Islands	Funnel Island	5159	1
Salvin's Alb.	New Zealand	Bounty Islands	Molly Cap	3353	1
Salvin's Alb.	New Zealand	Bounty Islands	Penguin Island (NZ)	2203	1
Salvin's Alb.	New Zealand	Bounty Islands	Ruatara Island	5313	1
Salvin's Alb.	New Zealand	Bounty Islands	Spider Island	3750	1
Salvin's Alb.	New Zealand	Bounty Islands	Tunnel Island	2333	1
Light-mantled Alb.	New Zealand	Campbell Islands	Campbell Island	1600	0
Northern Giant Petrel	New Zealand	Campbell Islands	Campbell Island	234	0
Buller's Alb.	New Zealand	Chatham Island	The Big Sister	1500	1
Buller's Alb.	New Zealand	Chatham Island	The Little (Middle) Sister	650	1
Northern Giant Petrel	New Zealand	Chatham Island	The Big Sister	336	0
Northern Giant Petrel	New Zealand	Chatham Island	The Forty-fours	1000	0
Northern Royal Alb.	New Zealand	Chatham Island	The Big Sister	1893	1
Buller's Alb.	New Zealand	Solander Islands	Little Solander Island	333	1
Buller's Alb.	New Zealand	The Snares	Broughton Island	518	1
Grey-headed Alb.	South Africa	Prince Edward Islands	Prince Edward Island	1506	1
Light-mantled Alb.	South Africa	Prince Edward Islands	Prince Edward Island	129	1

Species	Jurisdiction	Island group	Site	Population	other sites in the group
Northern Giant Petrel	South Africa	Prince Edward Islands	Prince Edward Island	180	1
Sooty Alb.	South Africa	Prince Edward Islands	Prince Edward Island	1210	1
Southern Giant Petrel	South Africa	Prince Edward Islands	Prince Edward Island	723	1
Wandering Alb.	South Africa	Prince Edward Islands	Prince Edward Island	1800	1
White-chinned Petrel	South Africa	Prince Edward Islands	Marion Island	24000	0
Balearic Shearwater	Spain	Balearic Archipelago	Cabrera	449	1
Atlantic Yellow-nosed Alb.	United Kingdom	Tristan da Cunha	Inaccessible Island	1100	0
Atlantic Yellow-nosed Alb.	United Kingdom	Tristan da Cunha	Nightingale	4000	0
Sooty Alb.	United Kingdom	Tristan da Cunha	Nightingale	150	0
Sooty Alb.	United Kingdom	Tristan da Cunha	Tristan da Cunha	2500	0
Black-footed Alb.	USA	Hawaii	Kure Atoll	3434	1
Black-footed Alb.	USA	Hawaii	Laysan Island	24565	1
Black-footed Alb.	USA	Hawaii	Lisianski Island	2126	1
Black-footed Alb.	USA	Hawaii	Pearl and Hermes Reef	6116	1
Laysan Alb.	USA	Hawaii	Laysan Island	134835	1
Laysan Alb.	USA	Hawaii	Lisianski Island	26500	1
Laysan Alb.	USA	Hawaii	Pearl and Hermes Reef	6900	1