

Table S1. Biological characteristics of seabirds sampled in Adélie Land and Kerguelen Islands. Measurements are from Shirihai (2002)

Species	Location	Chick-rearing period	Main foraging habitat (chick-rearing)		Guilds	Mass (g)	Size (cm)	Wingspan (cm)
			Horizontal	Vertical				
Spheniscidae								
King penguin (<i>Aptenodytes patagonicus</i>)	Kerguelen	January - December	oceanic	pelagic	pelagic diver	9300-17300	85-95	n/a
Emperor penguin (<i>Aptenodytes forsteri</i>)	Adélie Land	July - December	neritic	pelagic	pelagic diver	20000-41000	100-130	n/a
Gentoo penguin (<i>Pygoscelis papua</i>)	Kerguelen	September - February	coastal, neritic	benthic, pelagic	benthic diver	4500-8500	75-90	n/a
Adélie penguin (<i>Pygoscelis adeliae</i>)	Adélie Land	December - February	neritic	pelagic	pelagic diver	3800-8200	70-71	n/a
Southern rockhopper penguin (<i>Eudyptes chrysocome</i>)	Kerguelen	January - March	coastal, neritic, oceanic	pelagic	pelagic diver	2000-3800	45-55	n/a
Macaroni penguin (<i>Eudyptes chrysolophus</i>)	Kerguelen	December - February	oceanic	pelagic	pelagic diver	3100-6600	71	n/a
Diomedidae								
Wandering albatross (<i>Diomedea exulans</i>)	Kerguelen	March - November	oceanic	surface	surface feeder	6350-11300	110-135	250-350
Black-browed albatross (<i>Thalassarche melanophrys</i>)	Kerguelen	December - May	neritic, oceanic	surface	surface feeder	2900-4600	80-96	210-250
Light-mantled sooty albatross (<i>Phoebastria palpebrata</i>)	Kerguelen	December - June	oceanic	surface	surface feeder	2500-3700	78-90	180-220
Procellariidae								
Southern giant petrel (<i>Macronectes giganteus</i>)	Adélie Land	December - May	from terrestrial to oceanic	surface	scavenger/predator	3800-5000	85-100	150-210
Northern giant petrel (<i>Macronectes halli</i>)	Kerguelen	October - February	from terrestrial to oceanic	surface	scavenger/predator	3800-5000	80-95	150-210
Southern fulmar (<i>Fulmarus glacialis</i>)	Adélie Land	January - March	neritic, oceanic	surface	surface feeder	700-1000	45-50	114-120
Cape petrel (<i>Daption capense</i>)	Adélie Land	January - March	neritic, oceanic	surface	surface feeder	440	35-42	80-91
Snow petrel (<i>Pagodroma nivea</i>)	Adélie Land	January - March	neritic, oceanic	surface	surface feeder	200-570	30-40	75-95
White-headed petrel (<i>Pterodroma lessonii</i>)	Kerguelen	January - June	oceanic	surface	surface feeder	580-810	40-46	109
Great-winged petrel (<i>Pterodroma macroptera</i>)	Kerguelen	July - December	oceanic	surface	surface feeder	460-750	38-43	97-102
Kerguelen petrel (<i>Aphrodroma brevirostris</i>)	Kerguelen	November - January	oceanic	surface	surface feeder	357	33-36	80-82
White-chinned petrel (<i>Procellaria aequinoctialis</i>)	Kerguelen	January - April	oceanic	surface	surface feeder	1280-1390	51-58	134-147
Grey petrel (<i>Procellaria cinerea</i>)	Kerguelen	May - December	neritic, oceanic	surface	surface feeder	760-1520	50	115-130
Antarctic prion (<i>Pachyptila desolata</i>)	Kerguelen	February - April	oceanic	surface	surface feeder	95-224	25-27	58-66
Thin-billed prion (<i>Pachyptila belcheri</i>)	Kerguelen	December - February	oceanic	surface	surface feeder	115-180	25-26	56
Blue petrel (<i>Halobaena caerulea</i>)	Kerguelen	December - February	oceanic	surface	surface feeder	152-251	26-32	62-71
Hydrobatidae								
Wilson's storm petrel (<i>Oceanites oceanicus</i>)	Adélie Land	January - March	neritic, oceanic	surface	surface feeder	28-50	15-19	38-42

Pelecanoididae								
South Georgian diving petrel (<i>Pelecanoides georgicus</i>)	Kerguelen	January - March	oceanic	pelagic	pelagic diver	90-150	18-22	32
Common diving petrel (<i>Pelecanoides urinatrix</i>)	Kerguelen	December - March	coastal, neritic, oceanic	pelagic	pelagic diver	96-185	20-25	33-38
Phalacrocoracidae								
Kerguelen shag (<i>Phalacrocorax verrucosus</i>)	Kerguelen	December - April	coastal	benthic	benthic diver	1500-2200	65	no data
Stercorariidae								
Subantarctic skua (<i>Catharacta antarctica lonnbergi</i>)	Kerguelen	December - February	terrestrial	n/a	scavenger/predator	1250-2540	52-64	126-160
South polar skua (<i>Catharacta maccormicki</i>)	Adélie Land	December - February	terrestrial	n/a	scavenger/predator	600-1690	50-55	126-160
Laridae								
Kelp gull (<i>Larus dominicanus</i>)	Kerguelen	December - March	terrestrial, intertidal, coastal	n/a	ubiquitous	900-1340	54-65	128-142
Kerguelen tern (<i>Sterna virgata</i>)	Kerguelen	November - January	terrestrial, coastal	n/a	ubiquitous	85-170	33	68-72
Chionididae								
Black-faced sheathbill (<i>Chionis minor</i>)	Kerguelen	January - April	Terrestrial, intertidal	n/a	ubiquitous	450-760	38-41	74-79

Table S2. Overlap of standard ellipse areas (SEAc) for the eight seabird species from Adélie Land. See Table 1 for abbreviations

Species	EP	AP	SGP	SF	CP	SP	WSP	SPS
EP		0.00	0.00	0.00	0.00	0.00	0.00	0.00
AP	0.00		0.00	0.00	0.00	0.00	0.00	0.00
SGDP	0.00	0.00		0.00	0.00	0.09	0.00	0.00
SF	0.00	0.00	0.00		0.01	0.00	0.00	0.00
CP	0.00	0.00	0.00	0.01		0.00	0.00	0.00
SP	0.00	0.00	0.11	0.00	0.00		0.00	0.00
WSP	0.00	0.00	0.00	0.00	0.00	0.00		0.00
SPS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	

Table S3a. Overlap of standard ellipse areas (SEAc) for 15 oceanic seabirds from Kerguelen Islands. Significant overlaps ($\geq 50\%$) are in bold. See Table 1 for abbreviations. Note that the species group excludes the northern giant petrel (NGP) and the subantarctic skua (SS-morb) that feed on oceanic prey on terrestrial foraging grounds (see text)

Species	KP	SRP	MP	WA	BBA	LMSA	WHP	GWP	KeP	WCP	GrP	AnP	TBP	BP	SGDP
KP		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SRP	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
MP	0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
WA	0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.26	0.00	0.00	0.00	0.00
BBA	0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
LMSA	0.00	0.00	0.00	0.00	0.00		0.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
WHP	0.00	0.00	0.00	0.00	0.00	0.67		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
GWP	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00
KeP	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.68	0.00	0.00	0.00	0.00	0.00
WCP	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.43		0.00	0.00	0.00	0.00	0.00
GrP	0.00	0.00	0.00	0.15	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00
AnP	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.24	0.16	0.04
TBP	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.19		0.00	0.04
BP	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.12	0.00		0.00
SGDP	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.09	0.12	0.00	

Table S3b. Overlap of standard ellipse areas (SEAc) for neritic, coastal and terrestrial seabirds from Kerguelen Islands. Significant overlaps ($\geq 50\%$) are in bold. See Table 1 for abbreviations. Note that the species group includes the northern giant petrel (NGP) and the subantarctic skua (SS-morb) that feed on oceanic prey on terrestrial foraging grounds (see text)

Populations	GP	GP-morb	SRP-morb	NGP	CDP-morb	KS	KS-morb	SS-morb	KG	KT-morb	BFS-morb
GP		0.00	0.00	0.00	0.30	0.00	0.00	0.00	0.00	0.57	0.00
GP-morb	0.00		0.00	0.00	0.00	0.49	0.00	0.00	0.00	0.80	0.38
SRP-morb	0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NGP	0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00
CDP-morb	1.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.14	0.00
KS	0.00	0.17	0.00	0.00	0.00		0.00	0.00	0.29	0.72	0.49
KS-morb	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00
SS-morb	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00
KG	0.00	0.00	0.00	0.00	0.00	0.41	0.00	0.00		0.48	0.11
KT-morb	0.14	0.11	0.00	0.00	0.01	0.28	0.00	0.00	0.13		0.10
BFS-morb	0.00	0.06	0.00	0.00	0.00	0.22	0.00	0.00	0.03	0.11	