

## Appendix 1

Times of observation, weather, passage totals and passage rate by morning/afternoon of seabirds at Cabo Carvoeiro, Portugal, 12—18 October 2014<sup>a</sup>

Date		12 Oct	13 Oct	14 Oct	15 Oct	16 Oct	17 Oct	18 Oct								
Start / end count (hrs)		08:30-12:30	14:00-17:30	07:30-11:00	15:30-18:00	07:30-10:30	14:30-19:00	07:30-11:00	15:30-19:00	07:30-11:00	13:00-19:00	07:30-09:30	14:00-18:30	07:30-12:00		
Wind (m/s)		SW 12	NW 14	SW 8	W 8	W 5	W 6	SW 9	SW 10	SW 9	SW 10	S 10	S 9	S 6		
Precipitation (mm)		3	6	0.3	8	0.4	0	3	0.4	0.4	0.5	0	1	0.3		
Count effort	Total	Morning Afternoon														
Northern Gannet (min)	340	200	140	40	30	30	25	25	25	30	20	30	20	20	20	25
Other species (min)	1,820	1,057	763	162	125	165	140	138	150	153	120	169	108	120	120	150



Long-tailed Skua	1	100	1	0	0.1	0.0													1				
unidentified Skua	7	100	4	3	0.2	0.2	4												3				
Mediterranean Gull	20	100	20	0	1.1	0.0	6		12			2											
Sandwich Tern	263	100	183	80	10.4	6.3	26	22	44	42	13	7							79	3	7	6	14
Common Tern	32	100	23	9	1.3	0.7	1						2						18	9			2
Arctic Tern	4	100	4	0	0.2	0.0																	4
Razorbill	1	100	1	0	0.1	0.0							1										

<sup>a</sup> Numbers broken down by day and morning/afternoon include only birds passing to the SW, i.e. assumed genuine migrants

## Appendix 2

Diel pattern of southbound individuals and passage rate in the six most numerous seabirds at Cabo Carvoeiro, Portugal, 12—18 October 2014

Start of count period (hrs)		07:30	08:00	08:30	09:00	09:30	10:00	10:30	11:00	11:30	12:00	14:00	14:30	15:00	15:30	16:00	16:30	17:00	17:30	18:00	18:30
Effort Northern Gannet (min)		30	30	35	30	10	25	20	5	10	5	10	15	15	20	15	5	10	20	15	15
Effort other species (min)		332	525	582	733	139	153	167	127	157	105	138	518	405	411	449	70	387	107	112	94
Cory's Shearwater	Counted birds	5	25	19	10	16	17	4	10	7	4	4	5	8	6	13	0	1	2	20	5
	(inds/hr)	0.9	2.9	2.0	0.8	6.9	6.7	1.4	4.7	2.7	2.3	1.7	0.6	1.2	0.9	1.7	0	0.2	1.1	10.7	3.2
Balearic Shearwater	Counted birds	27	40	91	70	5	15	42	10	8	0	12	21	41	81	34	1	30	75	27	14
	(inds/hr)	4.9	4.6	9.4	5.7	2.2	5.9	15.1	4.7	3.1	0	5.2	2.4	6.1	11.8	4.5	0.9	4.7	42.1	14.5	8.9
Northern Gannet	Counted birds	332	525	497	619	53	98	63	0	10	0	33	28	15	36	94	70	54	107	112	94
	(inds/hr)	664	1,050	852	1,238	318	235.2	189	0	60	0	198	112	60	108	376	840	324	321	448	376

Great Skua	Counted birds	56	31	34	46	8	10	1	4	3	2	6	30	9	68	76	1	68	3	11	3
	(inds/hr)	10.1	3.5	3.5	3.8	3.5	3.9	0.4	1.9	1.1	1.1	2.6	3.5	1.3	9.9	10.2	0.9	10.5	1.7	5.9	1.9
Pomarine Skua	Counted birds	8	6	9	10	1	14	10	29	26	25	41	55	18	63	20	0	14	4	33	2
	(inds/hr)	1.4	0.7	0.9	0.8	0.4	5.5	3.6	13.7	9.9	14.3	17.8	6.4	2.7	9.2	2.7	0	2.2	2.2	17.7	1.3
Sandwich Tern	Counted birds	38	17	33	32	12	14	36	0	1	0	9	13	4	11	21	3	6	13	0	0
	(inds/hr)	6.9	1.9	3.4	2.6	5.2	5.5	12.9	0	0.4	0	3.9	1.5	0.6	1.6	2.8	2.6	0.9	7.3	0	0

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### Appendix 3

Flock size distribution of the 11 most numerous seabird species (save Northern Gannet) at Cabo Carvoeiro, Portugal, 12—18 October 2014 <sup>a</sup>

Species	Total #		Median	Mean	SD flock	Single											# of larger flocks	Fraction of all	Fraction of all
	migrants	Flocks (N)	flock size	flock size	size	birds	Two	Three	Four	Five	Six	Seven	Eight	Nine	Ten	(actual size)	birds migrating singly	birds migrating in two	
Cory's Shearwater	181	148	1	1.22	1.17	132	13	1			1					1 (14)	0.73	0.14	
Sooty Shearwater	77	64	1	1.20	0.40	51	13										0.66	0.34	
Manx Shearwater	45	40	1	1.12	0.33	35	5										0.78	0.22	
Balearic Shearwater	643	421	1	1.53	1.99	298	85	24	8	4						2 (14; 37)	0.46	0.26	
European Storm-petrel	58	53	1	1.09	0.29	48	5										0.83	0.17	
Great Skua	470	350	1	1.34	1.20	290	38	11	4	3		2		1		1 (16)	0.62	0.16	

Pomarine Skua	388	186	1	2.09	1.97	107	39	9	10	11	1	7		1		1 (17)	0.28	0.20
Parasitic Skua	14	12	1	1.17	0.37	10	2										0.71	0.29
Mediterranean Gull	20	8	2	2.50	1.50	2	3	2			1						0.10	0.30
Sandwich Tern	263	82	2	3.21	2.62	23	21	13	7	5	3	5	1	1	1	2 (11; 15)	0.09	0.16
Common Tern	32	11	2	2.91	1.93	3	4		1	2		1					0.09	0.25

<sup>a</sup> Only assumed genuine migrants (birds passing to the SW) are included. Columns 8 to 17 show counts of the respective flock sizes (two and up), i.e. not the total number of individuals occurring in a certain flock size. Columns 18-19, on the other hand, show the proportion of all individuals passing singly and in groups of two.