

**Breeding season**

Species	Population	Proportion of population adult (a)	Sabbatical rate (b)	Breeding season apportioning ratio (c)	Total breeding season collisions (d)	Total breeding season displacement mortality - higher displacement (e)	Total breeding season displacement mortality - lower displacement (f)	Breeding season displacement mortality of breeding adults - SeabORD (g)	Breeding season collision mortality of breeding adults (h) = a * (1-b) * c * d	Breeding season displacement mortality of breeding adults - higher displacement (i) = a * (1-b) * c * e or SeabORD estimate (g)	Breeding season displacement mortality of breeding adults - lower displacement (j) = a * (1-b) * c * f or SeabORD estimate
Kittiwake	Buchan Ness to Collieston Coast SPA*	0.46	0.1	0.330	61.733	-	-	5.200	8.358	5.200	5.200
Kittiwake	Calif of Eday SPA	0.46	0.1	0.001	61.733	29.270	9.27	-	0.018	0.008	0.003
Kittiwake	Cape Wrath SPA	0.51	0.1	0.005	61.733	29.270	9.27	-	0.132	0.063	0.021
Kittiwake	Copinsay SPA	0.46	0.1	0.001	61.733	29.270	9.27	-	0.021	0.010	0.003
Kittiwake	East Caithness Cliffs SPA*	0.46	0.1	0.091	61.733	-	-	3.800	2.298	3.800	3.800
Kittiwake	Fair Isle SPA	0.61	0.1	0.001	61.733	29.270	9.27	-	0.028	0.013	0.004
Kittiwake	Farne Islands SPA	0.46	0.1	0.013	61.733	29.270	9.27	-	0.341	0.162	0.054
Kittiwake	Forth Islands SPA*	0.46	0.1	0.028	61.733	-	-	1	0.718	1.000	1.000
Kittiwake	Foula SPA	0.61	0.1	0.000	61.733	29.270	9.27	-	0.015	0.007	0.002
Kittiwake	Fowlsheugh SPA*	0.46	0.1	0.185	61.733	-	-	0***	4.688	0***	0***
Kittiwake	Hoy SPA	0.46	0.1	0.001	61.733	29.270	9.27	-	0.016	0.008	0.003
Kittiwake	Marwick Head SPA	0.46	0.1	0.003	61.733	29.270	9.27	-	0.068	0.032	0.011
Kittiwake	North Caithness Cliffs SPA	0.46	0.1	0.015	61.733	29.270	9.27	-	0.370	0.175	0.058
Kittiwake	Noss SPA	0.61	0.1	0.000	61.733	29.270	9.27	-	0.003	0.002	0.001
Kittiwake	Rousay SPA	0.46	0.1	0.001	61.733	29.270	9.27	-	0.016	0.008	0.003
Kittiwake	St Abb's Head to Fast Castle SPA*	0.46	0.1	0.021	61.733	-	-	0***	0.521	0***	0***
Kittiwake	Sumburgh Head SPA	0.61	0.1	0.001	61.733	29.270	9.27	-	0.046	0.022	0.007
Kittiwake	Troup, Pennan and Lion's Heads SPA*	0.46	0.1	0.164	61.733	-	-	4.800	4.144	4.800	4.800
Kittiwake	West Westray SPA	0.46	0.1	0.004	61.733	29.270	9.27	-	0.111	0.053	0.018
Kittiwake	All other colonies	0.49	0.1	0.137	61.733	29.270	9.27	-	3.749	1.777	0.593
Kittiwake	Regional**	-	-	-	-	-	-	-	25.662	17.139	15.580

\*\*\*Positive SeabORD values

**Autumn migration**

Species	Population	Sabbatical rate (b)	Autumn migration	Total Autumn migr	Total predicted autumn migration season displacement mortality - higher displacement (m)	Total predicted autumn migration season displacement mortality - lower displacement (n)	Autumn migration collision mortality of breeding adults (o) = (1-b) * k * l	Autumn migration displacement mortality of breeding adults - higher displacement (p) = (1-b) * k * m	Autumn migration displacement mortality of breeding adults - lower displacement (p) = (1-b) * k * n
Kittiwake	Buchan Ness to Collieston Coast SPA	0.1	0.018	0.945	0.52	0.17	0.015	0.008	0.003
Kittiwake	Calif of Eday SPA	0.1	0.001	0.945	0.52	0.17	0.001	0.000	0.000
Kittiwake	Cape Wrath SPA	0.1	0.000	0.945	0.52	0.17	0.000	0.000	0.000
Kittiwake	Copinsay SPA	0.1	0.001	0.945	0.52	0.17	0.001	0.000	0.000
Kittiwake	East Caithness Cliffs SPA	0.1	0.058	0.945	0.52	0.17	0.049	0.027	0.009
Kittiwake	Fair Isle SPA	0.1	0.001	0.945	0.52	0.17	0.001	0.000	0.000
Kittiwake	Farne Islands SPA	0.1	0.005	0.945	0.52	0.17	0.004	0.002	0.001
Kittiwake	Forth Islands SPA	0.1	0.004	0.945	0.52	0.17	0.003	0.002	0.001
Kittiwake	Foula SPA	0.1	0.000	0.945	0.52	0.17	0.000	0.000	0.000
Kittiwake	Fowlsheugh SPA	0.1	0.013	0.945	0.52	0.17	0.011	0.006	0.002
Kittiwake	Hoy SPA	0.1	0.001	0.945	0.52	0.17	0.001	0.000	0.000
Kittiwake	Marwick Head SPA	0.1	0.001	0.945	0.52	0.17	0.001	0.000	0.000
Kittiwake	North Caithness Cliffs SPA	0.1	0.015	0.945	0.52	0.17	0.013	0.007	0.002
Kittiwake	Noss SPA	0.1	0.001	0.945	0.52	0.17	0.001	0.000	0.000
Kittiwake	Rousay SPA	0.1	0.003	0.945	0.52	0.17	0.003	0.001	0.000
Kittiwake	St Abb's Head to Fast Castle SPA	0.1	0.005	0.945	0.52	0.17	0.004	0.002	0.001
Kittiwake	Sumburgh Head SPA	0.1	0.000	0.945	0.52	0.17	0.000	0.000	0.000
Kittiwake	Troup, Pennan and Lion's Heads SPA	0.1	0.022	0.945	0.52	0.17	0.019	0.010	0.003
Kittiwake	West Westray SPA	0.1	0.017	0.945	0.52	0.17	0.014	0.008	0.003
Kittiwake	All other colonies	0.1	0.101	0.945	0.52	0.17	0.086	0.047	0.015
Kittiwake	Regional*	-	-	-	0.52	0.17	0.227	0.125	0.041

**Spring migration**

Species	Population	Sabbatical rate (b)	Spring migration a	Total spring migrat	Total predicted spring migration season displacement mortality - higher displacement (s)	Total predicted spring migration season displacement mortality - lower displacement (t)	Spring migration collision mortality of breeding adults (u)	Spring migration displacement mortality of breeding adults - higher displacement (v)	Spring migration displacement mortality of breeding adults - lower displacement (w)
Kittiwake	Buchan Ness to Collieston Coast SPA	0.1	0.024	8.346	6.760	2.250	0.180	0.146	0.049
Kittiwake	Calif of Eday SPA	0.1	0.001	8.346	6.760	2.250	0.008	0.006	0.002
Kittiwake	Cape Wrath SPA	0.1	0.000	8.346	6.760	2.250	0.000	0.000	0.000
Kittiwake	Copinsay SPA	0.1	0.001	8.346	6.760	2.250	0.008	0.006	0.002
Kittiwake	East Caithness Cliffs SPA	0.1	0.077	8.346	6.760	2.250	0.578	0.468	0.156
Kittiwake	Fair Isle SPA	0.1	0.001	8.346	6.760	2.250	0.008	0.006	0.002
Kittiwake	Farne Islands SPA	0.1	0.007	8.346	6.760	2.250	0.053	0.043	0.014
Kittiwake	Forth Islands SPA	0.1	0.006	8.346	6.760	2.250	0.045	0.037	0.012
Kittiwake	Foula SPA	0.1	0.001	8.346	6.760	2.250	0.008	0.006	0.002
Kittiwake	Fowlsheugh SPA	0.1	0.018	8.346	6.760	2.250	0.135	0.110	0.036
Kittiwake	Hoy SPA	0.1	0.001	8.346	6.760	2.250	0.008	0.006	0.002
Kittiwake	Marwick Head SPA	0.1	0.001	8.346	6.760	2.250	0.008	0.006	0.002
Kittiwake	North Caithness Cliffs SPA	0.1	0.019	8.346	6.760	2.250	0.143	0.116	0.038
Kittiwake	Noss SPA	0.1	0.001	8.346	6.760	2.250	0.008	0.006	0.002
Kittiwake	Rousay SPA	0.1	0.003	8.346	6.760	2.250	0.023	0.018	0.006
Kittiwake	St Abb's Head to Fast Castle SPA	0.1	0.007	8.346	6.760	2.250	0.053	0.043	0.014
Kittiwake	Sumburgh Head SPA	0.1	0.000	8.346	6.760	2.250	0.000	0.000	0.000
Kittiwake	Troup, Pennan and Lion's Heads SPA	0.1	0.028	8.346	6.760	2.250	0.210	0.170	0.057
Kittiwake	West Westray SPA	0.1	0.023	8.346	6.760	2.250	0.173	0.140	0.047
Kittiwake	All other colonies	0.1	0.134	8.346	6.760	2.250	1.007	0.815	0.271
Kittiwake	Regional*	-	-	-	6.760	2.250	2.652	2.148	0.715

**Annual**

Species	Population	Total impact - high	Total impact - low	Pop size	Percentage point change in adult survival rate - higher rate	Percentage point change in adult survival rate - lower rate
Kittiwake	Buchan Ness to Collieston Coast SPA	13.908	13.805	27094	0.051	0.051
Kittiwake	Calif of Eday SPA	0.041	0.031	672	0.006	0.005
Kittiwake	Cape Wrath SPA	0.194	0.153	7244	0.003	0.002
Kittiwake	Copinsay SPA	0.047	0.035	592	0.008	0.006
Kittiwake	East Caithness Cliffs SPA	7.221	6.890	48958	0.015	0.014
Kittiwake	Fair Isle SPA	0.057	0.043	896	0.006	0.005
Kittiwake	Farne Islands SPA	0.605	0.467	7166	0.008	0.007
Kittiwake	Forth Islands SPA	1.805	1.780	13244	0.014	0.013
Kittiwake	Foula SPA	0.036	0.027	850	0.004	0.003
Kittiwake	Fowlsheugh SPA	4.950	4.873	30966	0.016	0.016
Kittiwake	Hoy SPA	0.038	0.029	532	0.007	0.005
Kittiwake	Marwick Head SPA	0.115	0.089	2878	0.004	0.003
Kittiwake	North Caithness Cliffs SPA	0.823	0.625	11142	0.007	0.006
Kittiwake	Noss SPA	0.020	0.014	172	0.011	0.008
Kittiwake	Rousay SPA	0.069	0.050	660	0.010	0.008
Kittiwake	St Abb's Head to Fast Castle SPA	0.622	0.592	9158	0.007	0.006
Kittiwake	Sumburgh Head SPA	0.068	0.054	1932	0.004	0.003
Kittiwake	Troup, Pennan and Lion's Heads SPA	9.354	9.233	27344	0.034	0.034
Kittiwake	West Westray SPA	0.499	0.365	4838	0.010	0.008
Kittiwake	All other colonies	7.481	5.721	36801	0.020	0.016
Kittiwake	Regional*	47.953	44.876	233139	0.021	0.019

**Breeding season**

Species	Population	Proportion of population adult (a)	Sabbatical rate (b)	Breeding season apportioning ratio (c)	Total breeding season collisions (d)	Total breeding season displacement mortality - higher displacement (e)	Total breeding season displacement mortality - lower displacement (f)	Breeding season collision mortality of breeding adults (h) = a * (1-b) * c * d	Breeding season displacement mortality of breeding adults - higher displacement (i) = a * (1-b) * c * e or SeabORD estimate (g)	Breeding season displacement mortality of breeding adults - lower displacement (j) = a * (1-b) * c * f or SeabORD estimate
Gannet	Fair Isle SPA	0.550	0.1	0.022	9.589	12.55	4.18	0.103	0.135	0.045
Gannet	Flamborough and Filey coast SPA	0.550	0.1	0.040	9.589	12.55	4.18	0.191	0.250	0.083
Gannet	Forth Islands SPA	0.550	0.1	0.621	9.589	12.55	4.18	2.947	3.857	1.285
Gannet	Hermaness, Saxa Vord and Valla Field SP	0.550	0.1	0.050	9.589	12.55	4.18	0.237	0.311	0.104
Gannet	North Rona and Sula Sgeir SPA	0.546	0.1	0.018	9.589	12.55	4.18	0.085	0.111	0.037
Gannet	Noss SPA	0.550	0.1	0.035	9.589	12.55	4.18	0.164	0.214	0.071
Gannet	St Kilda SPA	0.546	0.1	0.057	9.589	12.55	4.18	0.267	0.350	0.116
Gannet	Sule Skerry and Sule Stack SPA	0.550	0.1	0.029	9.589	12.55	4.18	0.136	0.178	0.059
Gannet	All other colonies	0.549	0.1	0.129	9.589	12.55	4.18	0.610	0.798	0.266
Gannet	Regional*	-	-	-	-	-	-	4.740	6.203	2.067

**Autumn migration**

Species	Population	Sabbatical rate (b)	Autumn migration apportioning ratio (c)	Total Autumn migration (d)	Total predicted autumn migration season displacement mortality - higher displacement (m)	Total predicted autumn migration season displacement mortality - lower displacement (n)	Autumn migration collision mortality of breeding adults (o) = (1-b) * k * l	Autumn migration displacement mortality of breeding adults - higher displacement (p) = (1-b) * k * m	Autumn migration displacement mortality of breeding adults - lower displacement (p) = (1-b) * k * n
Gannet	Fair Isle SPA	0.1	0.014	2.305	12.45	4.15	0.029	0.157	0.052
Gannet	Flamborough and Filey coast SPA	0.1	0.048	2.305	12.45	4.15	0.100	0.538	0.179
Gannet	Forth Islands SPA	0.1	0.243	2.305	12.45	4.15	0.504	2.723	0.908
Gannet	Hermaness, Saxa Vord and Valla Field SP	0.1	0.085	2.305	12.45	4.15	0.176	0.952	0.317
Gannet	North Rona and Sula Sgeir SPA	0.1	0.004	2.305	12.45	4.15	0.008	0.045	0.015
Gannet	Noss SPA	0.1	0.034	2.305	12.45	4.15	0.071	0.381	0.127
Gannet	St Kilda SPA	0.1	0.026	2.305	12.45	4.15	0.054	0.291	0.097
Gannet	Sule Skerry and Sule Stack SPA	0.1	0.002	2.305	12.45	4.15	0.004	0.022	0.007
Gannet	All other colonies	0.1	0.026	2.305	12.45	4.15	0.054	0.291	0.097
Gannet	Regional*	-	-	-	-	-	1.000	5.401	1.800

**Spring migration**

Species	Population	Sabbatical rate (b)	Spring migration apportioning ratio (c)	Total spring migration (d)	Total predicted spring migration season displacement mortality - higher displacement (s)	Total predicted spring migration season displacement mortality - lower displacement (t)	Spring migration collision mortality of breeding adults (u)	Spring migration displacement mortality of breeding adults - higher displacement (v)	Spring migration displacement mortality of breeding adults - lower displacement (w)
Gannet	Fair Isle SPA	0.1	0.022	0.46	1.56	0.52	0.009	0.031	0.010
Gannet	Flamborough and Filey coast SPA	0.1	0.062	0.46	1.56	0.52	0.026	0.087	0.029
Gannet	Forth Islands SPA	0.1	0.313	0.46	1.56	0.52	0.130	0.439	0.146
Gannet	Hermaness, Saxa Vord and Valla Field SP	0.1	0.137	0.46	1.56	0.52	0.057	0.192	0.064
Gannet	North Rona and Sula Sgeir SPA	0.1	0.000	0.46	1.56	0.52	0.000	0.000	0.000
Gannet	Noss SPA	0.1	0.055	0.46	1.56	0.52	0.023	0.077	0.026
Gannet	St Kilda SPA	0.1	0.000	0.46	1.56	0.52	0.000	0.000	0.000
Gannet	Sule Skerry and Sule Stack SPA	0.1	0.000	0.46	1.56	0.52	0.000	0.000	0.000
Gannet	All other colonies	0.1	0.034	0.46	1.56	0.52	0.014	0.048	0.016
Gannet	Regional*	-	-	-	-	-	0.258	0.875	0.292

**Annual**

Species	Population	Total impact - high	Total impact - low	Pop size	Percentage point change in adult survival rate - higher rate	Percentage point change in adult survival rate - lower rate
Gannet	Fair Isle SPA	0.464	0.249	9654	0.005	0.003
Gannet	Flamborough and Filey coast SPA	1.191	0.608	30466	0.004	0.002
Gannet	Forth Islands SPA	10.600	5.919	150518	0.007	0.004
Gannet	Hermaness, Saxa Vord and Valla Field SP	1.926	0.956	59124	0.003	0.002
Gannet	North Rona and Sula Sgeir SPA	0.249	0.145	18990	0.001	0.001
Gannet	Noss SPA	0.929	0.481	24670	0.004	0.002
Gannet	St Kilda SPA	0.962	0.535	120580	0.001	0.000
Gannet	Sule Skerry and Sule Stack SPA	0.340	0.207	18130	0.002	0.001
Gannet	All other colonies	1.815	1.057	26446	0.007	0.004
Gannet	Regional*	18.476	10.156	458578	0.004	0.002

**Breeding season**

Species	Population	Proportion of population that is adult (a)	Sabbatical rate (b)	Breeding season apportioning ratio (c)	Total breeding season displacement mortality - higher displacement (d)	Total breeding season displacement mortality - lower displacement (e)	Breeding season displacement mortality of breeding adults - SeabORD (f)	Breeding season displacement mortality of breeding adults - higher displacement (g) = a * (1-b) * c * d or SeabORD estimate (f)	Breeding season displacement mortality of breeding adults - lower displacement (h) = a * (1-b) * c * e or SeabORD estimate (f)
Guillemot	Buchan Ness to Collieston Coast SPA*	0.516	0.07	0.607	-	-	0***	0	0
Guillemot	Troup, Pennan and Lion's Heads SPA*	0.516	0.07	0.368	-	-	0.100	0.100	0.100
Guillemot	All other colonies	0.516	0.07	0.025	393.670	236.2	-	4.710	2.826
Guillemot	Regional**	-	-	-	-	-	-	4.810	2.926

**Non-breeding season**

Species	Population	Proportion of population that is adult (a)	Sabbatical rate (b)	Non-breeding season apportioning ratio (c)	Total non-breeding season displacement mortality - higher displacement (i)	Total non-breeding season displacement mortality - lower displacement (j)	Non-breeding season displacement mortality of breeding adults - higher displacement (g) = a * (1-b) * c * i	Non-breeding season displacement mortality of breeding adults - lower displacement (h) = a * (1-b) * c * j
Guillemot	Buchan Ness to Collieston Coast SPA*	0.516	0.07	0.607	213.530	71.18	62.238	20.747
Guillemot	Troup, Pennan and Lion's Heads SPA*	0.516	0.07	0.368	213.530	71.18	37.696	12.566
Guillemot	All other colonies	0.516	0.07	0.025	213.530	71.18	2.555	0.852
Guillemot	Regional**	-	-	-	-	-	102.488	34.164

**Annual**

Species	Population	Total impact - higher displacement	Total impact - lower displacement	Pop size	Percentage point change in adult survival rate - higher rate	Percentage point change in adult survival rate - lower rate
Guillemot	Buchan Ness to Collieston Coast SPA*	62.238	20.747	40762.8	0.153	0.051
Guillemot	Troup, Pennan and Lion's Heads SPA*	37.796	12.666	47718.74	0.079	0.027
Guillemot	All other colonies	7.264	3.677	2385.2	0.305	0.154
Guillemot	Regional**	107.298	37.090	90866.74	0.118	0.041

**Breeding season**

Species	Population	Proportion of population that is adult (a)	Sabbatical rate (b)	Breeding season apportioning ratio (c)	Total breeding season displacement mortality - higher displacement (d)	Total breeding season displacement mortality - lower displacement (e)	Breeding season displacement mortality of breeding adults - SeabORD (f)	Breeding season displacement mortality of breeding adults - higher displacement (g) = a * (1-b) * c * d or SeabORD estimate (f)	Breeding season displacement mortality of breeding adults - lower displacement (h) = a * (1-b) * c * e or SeabORD estimate (f)
Razorbill	Troup, Pennan and Lion's Heads SPA*	0.559	0.07	0.174	-	-	0.800	0.800	0.800
Razorbill	Fowlsheugh SPA*	0.559	0.07	0.422	-	-	0.600	0.600	0.600
Razorbill	All other colonies	0.559	0.07	0.405	46.460	27.88	-	9.770	5.863
Razorbill	Regional**	-	-	-	-	-	-	11.170	7.263

**Autumn migration**

Species	Population	Sabbatical rate (b)	Autumn migration season apportioning ratio (i)	Total autumn migration season displacement mortality - higher displacement (j)	Total autumn migration season displacement mortality - lower displacement (k)	Autumn migration season displacement mortality of breeding adults - higher displacement (l) = (1-b) * i * j	Autumn migration season displacement mortality of breeding adults - lower displacement (m) = (1-b) * i * k
Razorbill	Troup, Pennan and Lion's Heads SPA*	0.07	0.006	24.990	8.33	0.139	0.046
Razorbill	Fowlsheugh SPA*	0.07	0.012	24.990	8.33	0.279	0.093
Razorbill	All other colonies	0.07	0.034	24.990	8.33	0.790	0.263
Razorbill	Regional**	-	-	-	-	1.209	0.403

**Spring migration**

Species	Population	Sabbatical rate (b)	Spring migration season apportioning ratio (n)	Total spring migration season displacement mortality - higher displacement (o)	Total spring migration season displacement mortality - lower displacement (p)	Spring migration season displacement mortality of breeding adults - higher displacement (q) = (1-b) * n * o	Spring migration season displacement mortality of breeding adults - lower displacement (r) = (1-b) * n * p
Razorbill	Troup, Pennan and Lion's Heads SPA*	0.07	0.006	2.100	0.700	0.012	0.004
Razorbill	Fowlsheugh SPA*	0.07	0.012	2.100	0.700	0.023	0.008
Razorbill	All other colonies	0.07	0.034	2.100	0.700	0.066	0.022
Razorbill	Regional**	-	-	-	-	0.102	0.034

**Non-breeding**

Species	Population	Sabbatical rate (b)	Non-breeding season apportioning ratio (s)	Total non-breeding season displacement mortality - higher displacement (t)	Total non-breeding season displacement mortality - lower displacement (u)	Non-breeding season displacement mortality of breeding adults - higher displacement (v) = (1-b) * s * t	Non-breeding season displacement mortality of breeding adults - lower displacement (w) = (1-b) * s * u
Razorbill	Troup, Pennan and Lion's Heads SPA*	0.07	0.005	0.750	0.250	0.003	0.001
Razorbill	Fowlsheugh SPA*	0.07	0.010	0.750	0.250	0.007	0.002
Razorbill	All other colonies	0.07	0.027	0.750	0.250	0.019	0.006
Razorbill	Regional**	-	-	-	-	0.029	0.010

**Annual**

Species	Population	Total impact - higher displacement	Total impact - lower displacement	Pop size	Percentage point change in adult survival rate - higher rate	Percentage point change in adult survival rate - lower rate
Razorbill	Troup, Pennan and Lion's Heads SPA*	0.955	0.851	8801.12	0.011	0.010
Razorbill	Fowlsheugh SPA*	0.909	0.703	20869.16	0.004	0.003
Razorbill	All other colonies	10.646	6.155	13992.28	0.076	0.044
Razorbill	Regional**	12.510	7.709	43662.56	0.029	0.018

**Breeding season**

Species	Population	Proportion of population that is adult (a)	Sabbatical rate (b)	Breeding season apportioning ratio (c)	Total breeding season displacement mortality - higher displacement (d)	Total breeding season displacement mortality - lower displacement (e)	Breeding season displacement mortality of breeding adults - SeabORD (f)	Breeding season displacement mortality of breeding adults - higher displacement (g) = a * (1-b) * c * d or SeabORD estimate (f)	Breeding season displacement mortality of breeding adults - lower displacement (h) = a * (1-b) * c * e or SeabORD estimate (f)
Puffin	Fair Isle	0.544	0.07	0.025	54.360	32.62		0.676	0.406
Puffin	North Caithness Cliffs	0.526	0.07	0.015	54.360	32.62		0.387	0.232
Puffin	Coquet Island*	0.526	0.07	0.151	-	-	1.800	1.800	1.800
Puffin	Farne Islands*	0.616	0.07	0.340	-	-	4.200	4.200	4.200
Puffin	Forth Islands*	0.53	0.07	0.413	-	-	10.200	10.200	10.200
Puffin	Hoy	0.53	0.07	0.002	54.360	32.62		0.055	0.033
Puffin	All other colonies	0.53	0.07	0.054	54.360	32.62		1.431	0.859
Puffin	REGIONAL			-				18.750	17.730

**Annual**

Species	Population	Total impact - higher displacement	Total impact - lower displacement	Pop size	Percentage point change in adult survival rate - higher rate	Percentage point change in adult survival rate - lower rate
Puffin	Fair Isle	0.68	0.406	13332	0.005	0.003
Puffin	North Caithness Cliffs	0.39	0.232	5438	0.007	0.004
Puffin	Coquet Island*	1.80	1.800	50058	0.004	0.004
Puffin	Farne Islands*	4.20	4.200	87504	0.005	0.005
Puffin	Forth Islands*	10.20	10.200	90291	0.011	0.011
Puffin	Hoy	0.05	0.033	860	0.006	0.004
Puffin	All other colonies	1.43	0.859	15146	0.009	0.006
Puffin	REGIONAL	18.75	17.730	262629	0.007	0.007

**Breeding season**

Species	Population	Proportion of population that is adult (a)	Sabbatical rate (b)	Breeding season apportioning ratio (c)	Total breeding season collision mortality (d)	Breeding season collision mortality of breeding adults (e) = a * (1-b) * c * d
Herring Gull	Buchan Ness to Collieston Coast	0.387	0.35	0.977	0.854	0.210
Herring gull	All other colonies	0.387	0.35	0.023	0.854	0.005
Herring gull	REGIONAL	-		-		0.215

**Non-breeding**

Species	Population	Proportion of population that is adult (a)	Sabbatical rate (b)	Non-breeding season apportioning ratio (f)	Total non-breeding season collision mortality (g)	Non-breeding season collision mortality of breeding adults (e) = a * (1-b) * f * g
Herring Gull	Buchan Ness to Collieston Coast	0.387	0.35	0.659	1.727	0.286
Herring gull	All other colonies	0.387	0.35	0.016	1.727	0.007
Herring gull	REGIONAL	-		-		0.293

**Annual**

Species	Population	Total impact	Pop size	Percentage point change in adult survival rate
Herring Gull	Buchan Ness to Collieston Coast	0.496	8801.12	0.006
Herring gull	All other colonies	0.012	20869.16	0.000
Herring gull	REGIONAL	0.508	43662.56	0.001