

From: [Dominika Phillips](#)
To: [Hornsea Project Three](#); [KJ Johansson](#); [Kay Sully](#)
Cc: [Andrew Guyton](#); [Stuart Livesey](#)
Subject: Hornsea Project Three (UK) Ltd response to Deadline 4 (Part 15)
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[D4_HOW03_Appendix 70_Inch Cape_Ornithology.pdf](#)
[D4_HOW03_Appendix 71_NF_HOW02_DL5.pdf](#)
[D4_HOW03_Appendix 72_Aviation Team.pdf](#)
[D4_HOW03_Appendix 73_Q2.2.30_Q2.2.39.pdf](#)

Dear Kay, K-J

Please find attached the 15th instalment of documents.

Best regards,
Dr Dominika Chalder PIEMA
Environment and Consent Manager



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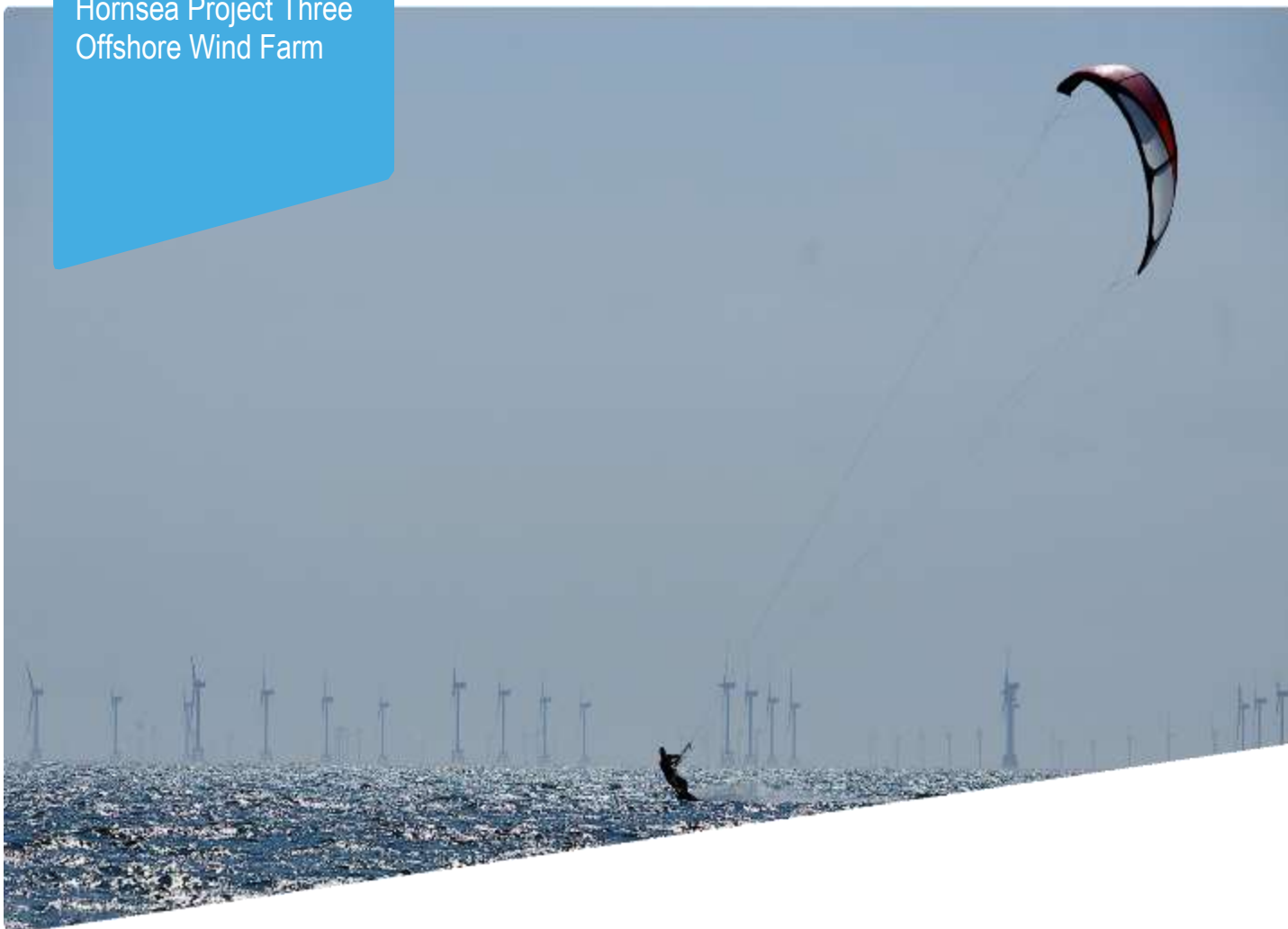
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Appendix 73 to Deadline 4 Submission
– Detailed response to the ExA Q2.2.30 and Q2.2.39:
PVA information

Date: 15th January 2019

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1. Introduction

- 1.1 This Appendix provides the Applicant's response to Ex.A second written questions ("SWQ") 2.2.30 and 2.2.39, which are as follows:

No.	Question
2.2.30	<i>NE has provided a response to your population viability assessment in Appendix 2 of its Deadline 3 submission [REP3-075].</i> <i>Please comment on the points raised. Please provide copies of any publications you wish to rely upon in evidence that have not already been supplied.</i>
2.2.39	<i>In its submission at Deadline 3 [REP3-075], NE notes that Rate Set 2 will relate to Flamborough/ Bempton productivity for 2009-2014 and that there will be more up to date productivity data available which may be more appropriate to use for colony population viability assessment. NE highlights the fact that you have applied the original model because you have assumed that none of the key model parameters have changed.</i> <i>Please explain why you have not used the most recent demographic rates in this model.</i> <i>Why you have not accepted that the model should be re-run in your Deadline 3 response to the RSPB comments?</i>

- 1.2 A detailed response to each of the points raised by Natural England in Appendix 2 of its Deadline 3 submission (REP3-075) is provided in the table below. The Applicant's response to the first item raised by Natural England also addresses the issue in relation to the use of demographic rate set 2 that is the subject of Question 2.2.39.

2. Responses to specific points raised by Natural England in Appendix 2 (REP3-075)

NE comment	Applicant's Response
Natural England understand that the models have been parameterised using the same two demographic "rate sets" (Rate Set 1 and Rate Set 2) that were used for the original (MacArthur Green (2015)) PVA models. Rate Set 1 uses demographic parameters from Horwill and Robinson (2015); Rate Set 2 uses productivity data from Aitken et al (2014) where available (selected for the period 2009-2014) and data from Horwill and Robinson (2015). Based on the understanding that the Applicant has retained these two rate sets in the updated PVAs, Rate Set 2 will relate to Flamborough/Bempton productivity for 2009-2014, however there will be more up to date productivity data available which may be more appropriate to use for colony PVA models now. In section 1.2 of the main Appendix the Applicant states "As none of the assumed values for all key model input parameters (including population size, survival rates and productivity) have changed since that Original PVA Model was produced and examined, it was considered appropriate to use it for the assessment of Hornsea Three". Although the use of counterfactual metrics should reduce the sensitivity of the model outputs to misspecification of demographic rates, Natural England advise that it would be best practice to use the most accurate estimates of demographic rates in the models.	The PVA work that was submitted by the Applicant at Deadline 1 (REP1-135) was commissioned to demonstrate the continuing utility of the predictions presented in MacArthur Green (2015), specifically in relation to a comparison of outputs obtained with matched pairs of simulations with unmatched outputs. Therefore it was not considered necessary for this purpose (nor was it suggested by NE in discussions prior to the work being undertaken) to update the demographic rates. As NE also point out, the use of counterfactuals means that any differences in output due to changes in productivity will likely be small, indeed this is one of the key characteristics of counterfactual outputs cited for their use in impact assessments. In addition, productivity rates in long-lived species such as seabirds have a relatively small effect on population growth rates compared with survival rates, further reducing the likelihood that revisions to this rate would have any material effect on the conclusions of the PVA. The more recent productivity estimates are described by NE as 'more accurate' however it is not apparent why this should be the case. Moreover, the key feature of rates used in the model should be how representative they are for future predictions.
Natural England also requests that all the information on parameters used in the models is presented in the document for clarity, rather than referring to previous reports submitted to PINs for other projects.	The demographic rates are provided in Table 1 below.
There is no information about starting population sizes used in the models or what the growth rates of the projected populations in the different models were. Natural England requests that these are presented.	The initial population sizes are provided in Table 2 below.
For the density dependent stochastic models (where density dependence is applied to productivity and not survival rates) the Applicant could not match reproductive rates between impacted and un-impacted runs so only survival rates were matched	As Natural England note, the Cook et al. (2016) and Jitlal et al. (2017) papers do not provide details of how the demographic rates were matched in density dependent formulations. Therefore it is not possible to determine if those

NE comment	Applicant's Response
between the impacted and un-impacted pairs. This issue was not raised in the Cook et al (2016) report where the metrics were calculated using a matched pairs approach for density dependent stochastic versions of the models. Natural England therefore requests clarification on this issue – in particular if it is possible to configure the models such that matched pairs can be run for the stochastic density dependent models and whether the Applicant's models have been parameterised in a different way from those in Cook et al (2016) and Jitlal et al (2017) where matched pairs were run for the stochastic density dependent models.	authors used different methods from those applied in the current PVA. However, there is a fundamental reason why a pair of density dependent simulations, one with an additional impact and one without, cannot be parameterised using the same (i.e. matched) demographic rates: the mechanism by which the population predictions are linked to population size is to use a relationship between population size and one or more demographic rates (in this case productivity) to adjust that rate. Thus, if this is a negative relationship, as the population increases in size the productivity rate declines, and vice versa. In this manner the population size is restricted. Because the two population projections in a matched pair are subject to different impacts (one has additional mortality applied, the other does not) the population sizes differ, and therefore the productivity rate for each, derived using the density dependent relationship, will also differ. Any attempt to modify the demographic rates in order to achieve equivalence (i.e. to 'match' the productivity rates for the impacted and non-impacted simulations) would therefore be modifying the effective density dependent relationship applied in the model, and the magnitude of this modification would increase as the difference in the population size of the two simulations increases. This does not affect density independent simulations since these models have no linkage between population size and demographic rates, therefore identical values can be applied to both pairs.
Please can the Applicant confirm that the density independent versions of the models have been run with both the survival and reproductive rates matched between the impacted and un-impacted pairs in each stochastic simulation.	Yes, this is the case.
The previous PVAs (MacArthur Green 2015) used 5000 simulations for the stochastic models whereas the PVA models presented in Annex 2 have used	A comparison of kittiwake model outputs for matched and non-matched runs obtained with 10, 1000 and 5000 simulations was provided to

NE comment	Applicant's Response
1000 simulations. Natural England requests that the Applicant demonstrates that using 1000 simulations does not affect the outputs of the models compared to the previous use of 5000 simulations, as it is possible that more than 1000 simulations might be needed to generate reliable results.	Natural England during the EWG process (APP-035). This clearly demonstrated that the difference in outputs for 1,000 simulations and 5,000 simulations was small, and most importantly there was no bias in the outputs.
Annex A presents tables that give metrics across a range of impact levels as requested by Natural England in our Written Reps. However the impacts are presented in 50 bird increments. In our Written Reps we requested a higher resolution of impact levels were presented (we suggested 5 bird increments) and we consider that increments less than 50 birds would be more informative when considering alternative predictions of impact levels.	Further work would be required to re-run the models at a finer scale of impact increment. However, given the linear nature of the counterfactual outputs it is clear that intermediate predictions can simply be obtained by interpolation between the values provided.
Both the Counterfactual of Growth Rate (CGR) and Counterfactual of Population Size (CPS) Metrics should be presented as a median value of the metric with 95% confidence intervals. The CPS metrics tables do not provide any confidence intervals. The CGR tables do give 95% confidence intervals for the metric. Natural England request that the 95% confidence intervals for the counterfactual of final population size metrics are also presented	Updated tables have been produced which provide the median and confidence intervals for both the counterfactuals of population size (CPS) and population growth rate (CPGR). See Annex A to this note.
It is not clear how the median and confidence intervals around the counterfactual of growth rate metrics have been calculated for both the matched runs and the unmatched runs approach (see below for more details). Although there are no confidence intervals presented for the counterfactual of final population size metrics the same query applies to this metric. Natural England requests that the Applicant sets out how they have calculated the metrics for the matched and un-matched runs approaches. A worked example would be useful.	The method for calculating the confidence intervals has been modified as per Natural England's suggested method, as per the following descriptions. At each level of modelled impact (i.e. additional mortality applied), for each matched pair of simulations, the impacted population size (at 5 year intervals) has been divided by the corresponding unimpacted population size. This yielded 1,000 values (as each run comprised 1,000 repeat simulations), from which the median and 95% confidence intervals were calculated. For the matched run CPGR, the population growth rate was calculated across the period from year 5 to year 35 for each population, yielding 1,000 impacted and 1,000 nonimpacted values. The impacted rates were divided by their matched nonimpacted rates to obtain 1,000 values of

NE comment	Applicant's Response
	CPGR, from which the median and confidence intervals were calculated. This is a slightly different method than that used in the original reporting and therefore generates slightly different values (but not materially so). Note that calculating the population growth rate over a long period as here (from year 5 to year 35) ensures that the estimates reflect the long term trend, rather than chance effects which may influence the population projections within shorter periods (e.g. if the rate is calculated for only the last few years of the simulation). This is considered a more robust approach for calculating growth. For the nonmatched calculations the same methods were used, however each impacted run was compared with the initial (baseline) run of the model when additional mortality was set to zero.
Natural England advises that with a matched pairs method the metric should be calculated for each of the individual matched pairs and then (given there are 1000 simulations in the Applicant's models) there will be 1000 metric calculations from which a median value of the metric and the 95% CIs can be derived.	See above response.
Natural England also requests details of how the counterfactual metrics have been calculated for the un-matched pairs runs. A worked example would be useful.	See above response.
Natural England note that the models still add mortality impacts in adult currency which remains an unresolved issue if impacts are assumed to occur on non-adult component of the population only.	This comment is noted, however the purpose of the modelling was to update the previous versions using matched runs and a 35 year projection period, and provide comparative outputs. Therefore the question of which age class to apply impacts to was not revisited. It is also important to note that although outputs are <u>reported</u> in relation to additional adult mortality, mortality within the model is applied to all age classes in proportion to their presence in the population.

Table 1. Initial population sizes used in the modelling. The figures and sources were provided by Natural England. Note that the guillemot and razorbill populations have been adjusted as per Harris (1989) to convert from individuals on land to breeding pairs.

Species	Initial population size (breeding individuals)	Year	Source
Gannet	22122	2012	Census of breeding adults, Seabird Monitoring Programme (SMP)
Kittiwake	89041	2008	Breeding adults for original SPA (SMP) plus RSPB counts for terrestrial extension of SPA (2009-2011), unpublished.
Guillemot	83214	2008	Breeding adults for original SPA (SMP) plus RSPB counts for terrestrial extension of SPA (2009-2011), unpublished.
Razorbill	21140	2008	Breeding adults for original SPA (SMP) plus RSPB counts for terrestrial extension of SPA (2009-2011), unpublished.
Puffin	1960	2008	Breeding adults for original SPA (SMP) plus RSPB counts for terrestrial extension of SPA (2009-2011), unpublished.

Table 2. Demographic rates used in the population models

Model		Survival						Reproduction	
		0-1	1-2	2-3	3-4	4-5	Adult	Fledged young per pair	Age first breeding
GX1	Mean	0.42	0.829	0.891	0.895	-	0.919	0.77	5
	SD	0.078	0.031	0.031	0.031	-	0.012	0.035	
GX2	Mean	0.42	0.829	0.891	0.895	-	0.919	0.828*	5
	SD	0.078	0.031	0.031	0.031	-	0.012	0.028	
KI1	Mean	0.79	0.85	0.87	-	-	0.882	0.672	4
	SD	0.035	0.035	0.035	-	-	0.035	0.3	
KI2	Mean	0.790	0.854	0.854	-	-	0.854	0.847*	4
	SD	0.051	0.051	0.051	-	-	0.051	0.219	
GU1	Mean	0.56	0.792	0.917	0.938	-	0.965	0.68	5

Model		Survival						Reproduction	
		0-1	1-2	2-3	3-4	4-5	Adult	Fledged young per pair	Age first breeding
	SD	0.014	0.030	0.017	0.017	-	0.010	0.113	
GU2	Mean	0.56	0.792	0.917	0.939	0.939	0.939	0.775*	6
	SD	0.014	0.030	0.017	0.015	0.015	0.015	0.026	
RA1	Mean	0.9	0.9	0.9	-	-	0.9	0.63	4
	SD	0.028	0.028	0.028	-	-	0.028	0.085	
RA2	Mean	0.63	0.63	0.895	0.895	-	0.895	0.683*	5
	SD	0.209	0.209	0.067	0.067	-	0.067	0.056	
PU1	Mean	0.924	0.924	0.924	0.924	-	0.924	0.67	5
	SD	0.010	0.010	0.010	0.010	-	0.010	0.156	
PU2	Mean	0.709	0.709	0.760	0.805	-	0.906	0.617	5
	SD	0.083	0.083	0.083	0.083	-	0.083	0.151	

3. Annex A

Table A2_1.1. Gannet, demographic rate set 1, counterfactuals of population size after 5 to 35 years, estimated using a matched runs method, from 1000 density independent simulations.

	Counterfactual of population size at 5 year intervals							
Additional adult mortality	Estimate	yr.5	yr.10	yr.15	yr.20	yr.25	yr.30	yr.35
0	Lower 95%	1.000	1.000	1.000	1.000	1.000	1.000	1.000
	Median	1.000	1.000	1.000	1.000	1.000	1.000	1.000
	Upper 95%	1.000	1.000	1.000	1.000	1.000	1.000	1.000
25	Lower 95%	0.995	0.990	0.984	0.978	0.973	0.967	0.962
	Median	0.995	0.990	0.984	0.979	0.973	0.968	0.962
	Upper 95%	0.996	0.990	0.985	0.979	0.974	0.968	0.963
50	Lower 95%	0.991	0.979	0.968	0.957	0.946	0.936	0.925
	Median	0.991	0.980	0.969	0.958	0.947	0.936	0.926
	Upper 95%	0.991	0.980	0.969	0.958	0.948	0.937	0.927
75	Lower 95%	0.986	0.969	0.953	0.937	0.921	0.905	0.890
	Median	0.987	0.970	0.954	0.938	0.922	0.906	0.891
	Upper 95%	0.987	0.971	0.954	0.938	0.923	0.907	0.892
100	Lower 95%	0.982	0.959	0.938	0.916	0.896	0.876	0.856
	Median	0.982	0.960	0.939	0.917	0.897	0.877	0.857
	Upper 95%	0.983	0.961	0.940	0.919	0.898	0.878	0.859
125	Lower 95%	0.977	0.949	0.923	0.897	0.871	0.847	0.823
	Median	0.978	0.950	0.924	0.898	0.873	0.848	0.825
	Upper 95%	0.978	0.951	0.925	0.899	0.874	0.850	0.826
150	Lower 95%	0.972	0.939	0.908	0.877	0.848	0.819	0.792
	Median	0.973	0.941	0.909	0.879	0.849	0.821	0.793
	Upper 95%	0.974	0.942	0.911	0.880	0.851	0.823	0.795
175	Lower 95%	0.968	0.930	0.893	0.858	0.824	0.792	0.761

	Counterfactual of population size at 5 year intervals							
Additional adult mortality	Estimate	yr.5	yr.10	yr.15	yr.20	yr.25	yr.30	yr.35
	Median	0.969	0.931	0.895	0.860	0.827	0.794	0.763
	Upper 95%	0.970	0.932	0.896	0.862	0.828	0.796	0.766
	Lower 95%	0.963	0.920	0.879	0.839	0.802	0.766	0.732
200	Median	0.964	0.922	0.881	0.842	0.804	0.768	0.734
	Upper 95%	0.965	0.923	0.882	0.844	0.806	0.771	0.737
	Lower 95%	0.959	0.910	0.865	0.821	0.780	0.741	0.704
225	Median	0.960	0.912	0.867	0.823	0.782	0.743	0.706
	Upper 95%	0.961	0.914	0.869	0.826	0.785	0.746	0.709
	Lower 95%	0.954	0.901	0.851	0.803	0.759	0.717	0.677
250	Median	0.956	0.903	0.853	0.806	0.761	0.719	0.679
	Upper 95%	0.957	0.905	0.855	0.808	0.764	0.722	0.682
	Lower 95%	0.950	0.892	0.837	0.786	0.738	0.693	0.651
275	Median	0.951	0.894	0.839	0.788	0.741	0.696	0.653
	Upper 95%	0.953	0.896	0.842	0.791	0.743	0.698	0.656
	Lower 95%	0.945	0.882	0.824	0.769	0.718	0.670	0.626
300	Median	0.947	0.884	0.826	0.771	0.721	0.673	0.629
	Upper 95%	0.949	0.887	0.829	0.774	0.723	0.676	0.631
	Lower 95%	0.941	0.873	0.810	0.752	0.698	0.648	0.602
325	Median	0.943	0.875	0.813	0.755	0.701	0.651	0.605
	Upper 95%	0.944	0.878	0.815	0.758	0.704	0.654	0.608
	Lower 95%	0.936	0.864	0.797	0.736	0.679	0.626	0.578
350	Median	0.938	0.866	0.800	0.739	0.682	0.630	0.581
	Upper 95%	0.940	0.869	0.803	0.742	0.685	0.633	0.584
	Lower 95%	0.932	0.855	0.784	0.719	0.660	0.606	0.556
375	Median	0.934	0.857	0.787	0.723	0.663	0.609	0.559
	Upper 95%	0.934	0.857	0.787	0.723	0.663	0.609	0.559

	Counterfactual of population size at 5 year intervals							
Additional adult mortality	Estimate	yr.5	yr.10	yr.15	yr.20	yr.25	yr.30	yr.35
	Upper 95%	0.936	0.860	0.790	0.726	0.667	0.613	0.563
400	Lower 95%	0.927	0.846	0.771	0.704	0.642	0.586	0.534
	Median	0.930	0.848	0.775	0.707	0.645	0.589	0.538
	Upper 95%	0.932	0.851	0.778	0.710	0.649	0.592	0.541
425	Lower 95%	0.923	0.837	0.759	0.688	0.624	0.566	0.513
	Median	0.925	0.840	0.762	0.692	0.628	0.570	0.517
	Upper 95%	0.927	0.843	0.765	0.695	0.631	0.573	0.521
450	Lower 95%	0.919	0.828	0.746	0.673	0.607	0.548	0.494
	Median	0.921	0.831	0.750	0.677	0.611	0.551	0.497
	Upper 95%	0.923	0.834	0.753	0.680	0.614	0.554	0.501
475	Lower 95%	0.914	0.819	0.734	0.658	0.590	0.529	0.475
	Median	0.917	0.823	0.738	0.662	0.594	0.533	0.478
	Upper 95%	0.919	0.826	0.742	0.666	0.598	0.537	0.482
500	Lower 95%	0.910	0.810	0.722	0.644	0.574	0.511	0.456
	Median	0.913	0.814	0.726	0.648	0.578	0.515	0.459
	Upper 95%	0.915	0.818	0.730	0.651	0.582	0.519	0.463

Table A2_1.2. Gannet, demographic rate set 1, counterfactuals of population size after 5 to 35 years, estimated using a non-matched runs method, from 1000 density independent simulations.

Additional adult mortality	Counterfactual of population size at 5 year intervals							
	Estimate	yr.5	yr.10	yr.15	yr.20	yr.25	yr.30	yr.35
0	Lower 95%	1.000	1.000	1.000	1.000	1.000	1.000	1.000
	Median	1.000	1.000	1.000	1.000	1.000	1.000	1.000
	Upper 95%	1.000	1.000	1.000	1.000	1.000	1.000	1.000
25	Lower 95%	0.913	0.876	0.834	0.809	0.788	0.773	0.740
	Median	0.996	0.990	0.985	0.980	0.981	0.971	0.963
	Upper 95%	1.080	1.130	1.163	1.203	1.231	1.232	1.245
50	Lower 95%	0.908	0.857	0.822	0.790	0.765	0.738	0.710
	Median	0.991	0.979	0.966	0.960	0.954	0.943	0.933
	Upper 95%	1.083	1.117	1.147	1.151	1.185	1.195	1.203
75	Lower 95%	0.900	0.843	0.803	0.762	0.731	0.701	0.687
	Median	0.986	0.967	0.945	0.938	0.926	0.907	0.891
	Upper 95%	1.076	1.106	1.124	1.141	1.154	1.151	1.150
100	Lower 95%	0.898	0.840	0.801	0.763	0.724	0.694	0.664
	Median	0.983	0.963	0.941	0.921	0.904	0.882	0.863
	Upper 95%	1.073	1.096	1.120	1.102	1.116	1.114	1.102
125	Lower 95%	0.895	0.831	0.776	0.739	0.702	0.665	0.634
	Median	0.980	0.952	0.923	0.902	0.878	0.850	0.824
	Upper 95%	1.068	1.086	1.082	1.091	1.099	1.101	1.073
150	Lower 95%	0.891	0.825	0.770	0.734	0.696	0.649	0.612
	Median	0.973	0.937	0.907	0.879	0.849	0.826	0.798
	Upper 95%	1.065	1.074	1.065	1.062	1.048	1.047	1.020
175	Lower 95%	0.884	0.812	0.750	0.712	0.669	0.625	0.587
	Median	0.968	0.929	0.890	0.860	0.829	0.795	0.762

	Counterfactual of population size at 5 year intervals							
Additional adult mortality	Estimate	yr.5	yr.10	yr.15	yr.20	yr.25	yr.30	yr.35
	Upper 95%	1.055	1.066	1.058	1.044	1.033	1.021	1.004
200	Lower 95%	0.879	0.810	0.748	0.684	0.640	0.609	0.571
	Median	0.963	0.919	0.880	0.842	0.809	0.772	0.735
	Upper 95%	1.055	1.052	1.031	1.026	1.009	0.971	0.958
225	Lower 95%	0.883	0.800	0.735	0.665	0.627	0.585	0.536
	Median	0.961	0.912	0.864	0.825	0.783	0.744	0.705
	Upper 95%	1.047	1.039	1.030	0.999	0.972	0.955	0.922
250	Lower 95%	0.871	0.789	0.715	0.668	0.609	0.568	0.523
	Median	0.957	0.905	0.853	0.806	0.764	0.722	0.680
	Upper 95%	1.045	1.036	1.017	0.995	0.963	0.940	0.903
275	Lower 95%	0.870	0.781	0.714	0.654	0.592	0.548	0.513
	Median	0.951	0.894	0.838	0.792	0.742	0.698	0.655
	Upper 95%	1.041	1.020	0.994	0.948	0.930	0.892	0.847
300	Lower 95%	0.865	0.775	0.693	0.624	0.580	0.529	0.489
	Median	0.948	0.884	0.825	0.774	0.724	0.677	0.632
	Upper 95%	1.034	1.003	0.976	0.943	0.902	0.864	0.823
325	Lower 95%	0.858	0.753	0.675	0.608	0.556	0.510	0.467
	Median	0.945	0.879	0.811	0.756	0.708	0.656	0.608
	Upper 95%	1.031	1.007	0.969	0.934	0.883	0.829	0.792
350	Lower 95%	0.860	0.746	0.668	0.601	0.543	0.492	0.449
	Median	0.941	0.867	0.799	0.739	0.685	0.631	0.584
	Upper 95%	1.027	0.995	0.939	0.898	0.852	0.813	0.757
375	Lower 95%	0.854	0.750	0.664	0.592	0.531	0.475	0.430
	Median	0.933	0.855	0.786	0.723	0.666	0.613	0.561
	Upper 95%	1.019	0.971	0.933	0.877	0.825	0.781	0.724

	Counterfactual of population size at 5 year intervals							
Additional adult mortality	Estimate	yr.5	yr.10	yr.15	yr.20	yr.25	yr.30	yr.35
400	Lower 95%	0.849	0.746	0.656	0.581	0.524	0.471	0.419
	Median	0.930	0.853	0.776	0.711	0.651	0.594	0.544
	Upper 95%	1.018	0.967	0.915	0.861	0.794	0.748	0.694
425	Lower 95%	0.845	0.737	0.653	0.571	0.509	0.458	0.407
	Median	0.925	0.840	0.762	0.694	0.632	0.574	0.514
	Upper 95%	1.012	0.964	0.893	0.844	0.790	0.734	0.675
450	Lower 95%	0.847	0.729	0.632	0.554	0.491	0.435	0.387
	Median	0.920	0.829	0.747	0.677	0.610	0.552	0.498
	Upper 95%	1.003	0.949	0.882	0.819	0.764	0.700	0.644
475	Lower 95%	0.839	0.721	0.627	0.545	0.477	0.422	0.366
	Median	0.917	0.820	0.734	0.663	0.597	0.534	0.477
	Upper 95%	1.003	0.942	0.878	0.809	0.745	0.674	0.617
500	Lower 95%	0.839	0.708	0.617	0.541	0.467	0.407	0.358
	Median	0.913	0.814	0.729	0.654	0.582	0.519	0.462
	Upper 95%	1.001	0.936	0.858	0.795	0.728	0.659	0.596

Table A2_1.3. Gannet, demographic rate set 1, counterfactuals of population growth rate calculated between year 5 and year 35, using a matched runs method, from 1000 density independent simulations.

Additional adult mortality	Lower 95%	Median	Upper 95%
0	1.000	1.000	1.000
25	0.999	0.999	0.999
50	0.998	0.998	0.998
75	0.997	0.997	0.997
100	0.995	0.995	0.996
125	0.994	0.994	0.994
150	0.993	0.993	0.993
175	0.992	0.992	0.992
200	0.991	0.991	0.991
225	0.990	0.990	0.990
250	0.989	0.989	0.989
275	0.987	0.988	0.988
300	0.986	0.986	0.987
325	0.985	0.985	0.985
350	0.984	0.984	0.984
375	0.983	0.983	0.983
400	0.982	0.982	0.982
425	0.981	0.981	0.981
450	0.979	0.980	0.980
475	0.978	0.979	0.979
500	0.977	0.977	0.978

Table A2_1.4. Gannet, demographic rate set 1, counterfactuals of population growth rate calculated between year 5 and year 35, using a non-matched runs method, from 1000 density independent simulations.

Additional adult mortality	Lower 95%	Median	Upper 95%
0	1.000	1.000	1.000
25	0.991	0.999	1.007
50	0.990	0.998	1.006
75	0.988	0.997	1.005
100	0.988	0.996	1.003
125	0.986	0.994	1.003
150	0.985	0.993	1.001
175	0.984	0.992	1.001
200	0.983	0.991	0.999
225	0.981	0.990	0.998
250	0.981	0.989	0.997
275	0.980	0.988	0.996
300	0.979	0.987	0.995
325	0.978	0.985	0.994
350	0.976	0.984	0.992
375	0.975	0.983	0.991
400	0.974	0.982	0.990
425	0.973	0.981	0.989
450	0.972	0.980	0.987
475	0.970	0.979	0.986
500	0.970	0.978	0.986

Table A2_2.1. Gannet, demographic rate set 1, counterfactuals of population size after 5 to 35 years, estimated using a matched runs method, from 1000 density dependent simulations.

Additional adult mortality	Counterfactual of population size at 5 year intervals							
	Estimate	yr.5	yr.10	yr.15	yr.20	yr.25	yr.30	yr.35
0	Lower 95%	1.000	1.000	1.000	1.000	1.000	1.000	1.000
	Median	1.000	1.000	1.000	1.000	1.000	1.000	1.000
	Upper 95%	1.000	1.000	1.000	1.000	1.000	1.000	1.000
25	Lower 95%	0.996	0.991	0.987	0.983	0.980	0.977	0.975
	Median	0.996	0.991	0.987	0.984	0.981	0.978	0.976
	Upper 95%	0.996	0.992	0.988	0.984	0.982	0.979	0.977
50	Lower 95%	0.991	0.982	0.974	0.967	0.961	0.955	0.950
	Median	0.992	0.983	0.975	0.968	0.962	0.957	0.952
	Upper 95%	0.992	0.983	0.975	0.969	0.964	0.959	0.955
75	Lower 95%	0.987	0.974	0.962	0.951	0.942	0.933	0.926
	Median	0.988	0.974	0.963	0.952	0.944	0.936	0.929
	Upper 95%	0.988	0.975	0.963	0.954	0.946	0.938	0.932
100	Lower 95%	0.983	0.965	0.949	0.935	0.923	0.912	0.902
	Median	0.984	0.966	0.950	0.937	0.925	0.915	0.906
	Upper 95%	0.984	0.966	0.951	0.939	0.928	0.918	0.910
125	Lower 95%	0.979	0.957	0.937	0.920	0.904	0.890	0.878
	Median	0.979	0.957	0.938	0.922	0.907	0.894	0.883
	Upper 95%	0.980	0.958	0.939	0.923	0.910	0.898	0.888
150	Lower 95%	0.975	0.948	0.925	0.904	0.886	0.869	0.855
	Median	0.975	0.949	0.926	0.906	0.889	0.874	0.861
	Upper 95%	0.976	0.950	0.927	0.909	0.892	0.879	0.867
175	Lower 95%	0.970	0.940	0.913	0.889	0.867	0.848	0.831
	Median	0.971	0.940	0.914	0.891	0.871	0.854	0.838

	Counterfactual of population size at 5 year intervals							
Additional adult mortality	Estimate	yr.5	yr.10	yr.15	yr.20	yr.25	yr.30	yr.35
	Upper 95%	0.972	0.941	0.915	0.894	0.875	0.859	0.845
200	Lower 95%	0.966	0.931	0.900	0.874	0.849	0.828	0.809
	Median	0.967	0.932	0.902	0.876	0.854	0.834	0.817
	Upper 95%	0.968	0.933	0.904	0.879	0.858	0.840	0.823
225	Lower 95%	0.962	0.923	0.888	0.858	0.831	0.807	0.786
	Median	0.963	0.924	0.890	0.861	0.836	0.814	0.795
	Upper 95%	0.964	0.925	0.892	0.864	0.841	0.820	0.803
250	Lower 95%	0.958	0.914	0.877	0.844	0.814	0.788	0.765
	Median	0.959	0.916	0.879	0.847	0.819	0.795	0.774
	Upper 95%	0.960	0.917	0.881	0.850	0.824	0.802	0.783
275	Lower 95%	0.954	0.906	0.865	0.829	0.797	0.769	0.744
	Median	0.955	0.908	0.867	0.832	0.802	0.776	0.753
	Upper 95%	0.956	0.909	0.869	0.836	0.808	0.783	0.762
300	Lower 95%	0.950	0.898	0.853	0.814	0.779	0.749	0.722
	Median	0.951	0.899	0.856	0.818	0.785	0.757	0.732
	Upper 95%	0.952	0.901	0.858	0.822	0.791	0.765	0.742
325	Lower 95%	0.946	0.890	0.842	0.800	0.763	0.731	0.702
	Median	0.947	0.891	0.844	0.804	0.769	0.739	0.712
	Upper 95%	0.948	0.893	0.847	0.808	0.776	0.747	0.723
350	Lower 95%	0.941	0.882	0.830	0.785	0.746	0.711	0.681
	Median	0.943	0.883	0.833	0.790	0.753	0.720	0.692
	Upper 95%	0.944	0.885	0.836	0.795	0.760	0.730	0.703
375	Lower 95%	0.937	0.874	0.819	0.771	0.729	0.693	0.660
	Median	0.939	0.875	0.822	0.776	0.736	0.702	0.672
	Upper 95%	0.940	0.877	0.824	0.781	0.743	0.711	0.683

	Counterfactual of population size at 5 year intervals							
Additional adult mortality	Estimate	yr.5	yr.10	yr.15	yr.20	yr.25	yr.30	yr.35
400	Lower 95%	0.933	0.865	0.807	0.757	0.713	0.675	0.641
	Median	0.935	0.867	0.811	0.762	0.721	0.685	0.653
	Upper 95%	0.937	0.869	0.813	0.767	0.727	0.693	0.664
425	Lower 95%	0.929	0.858	0.796	0.744	0.698	0.657	0.621
	Median	0.931	0.860	0.800	0.749	0.705	0.667	0.634
	Upper 95%	0.933	0.861	0.803	0.754	0.713	0.677	0.647
450	Lower 95%	0.925	0.850	0.785	0.730	0.682	0.640	0.603
	Median	0.927	0.852	0.789	0.735	0.689	0.650	0.615
	Upper 95%	0.929	0.854	0.792	0.741	0.697	0.660	0.628
475	Lower 95%	0.921	0.842	0.775	0.717	0.666	0.622	0.583
	Median	0.923	0.844	0.778	0.722	0.674	0.633	0.597
	Upper 95%	0.925	0.846	0.781	0.727	0.682	0.643	0.609
500	Lower 95%	0.917	0.834	0.764	0.703	0.651	0.605	0.566
	Median	0.919	0.836	0.767	0.709	0.659	0.616	0.578
	Upper 95%	0.921	0.838	0.770	0.715	0.667	0.626	0.591

Table A2_2.2. Gannet, demographic rate set 1, counterfactuals of population size after 5 to 35 years, estimated using a non-matched runs method, from 1000 density dependent simulations.

Additional adult mortality	Counterfactual of population size at 5 year intervals							
	Estimate	yr.5	yr.10	yr.15	yr.20	yr.25	yr.30	yr.35
0	Lower 95%	1.000	1.000	1.000	1.000	1.000	1.000	1.000
	Median	1.000	1.000	1.000	1.000	1.000	1.000	1.000
	Upper 95%	1.000	1.000	1.000	1.000	1.000	1.000	1.000
25	Lower 95%	0.919	0.892	0.870	0.860	0.847	0.839	0.835
	Median	0.992	0.991	0.985	0.981	0.981	0.975	0.979
	Upper 95%	1.068	1.094	1.120	1.122	1.132	1.130	1.134
50	Lower 95%	0.915	0.877	0.860	0.833	0.827	0.817	0.806
	Median	0.991	0.982	0.972	0.965	0.964	0.960	0.955
	Upper 95%	1.069	1.093	1.113	1.117	1.114	1.126	1.130
75	Lower 95%	0.916	0.883	0.846	0.836	0.821	0.805	0.789
	Median	0.987	0.973	0.961	0.949	0.943	0.937	0.933
	Upper 95%	1.067	1.078	1.087	1.094	1.101	1.096	1.094
100	Lower 95%	0.908	0.865	0.836	0.811	0.792	0.787	0.770
	Median	0.982	0.963	0.949	0.940	0.926	0.916	0.913
	Upper 95%	1.065	1.077	1.083	1.076	1.077	1.073	1.068
125	Lower 95%	0.907	0.858	0.823	0.801	0.784	0.767	0.756
	Median	0.978	0.955	0.939	0.925	0.913	0.900	0.890
	Upper 95%	1.053	1.059	1.063	1.051	1.048	1.054	1.039
150	Lower 95%	0.908	0.854	0.816	0.793	0.769	0.750	0.734
	Median	0.975	0.948	0.926	0.906	0.890	0.874	0.861
	Upper 95%	1.045	1.053	1.047	1.040	1.024	1.022	1.011
175	Lower 95%	0.898	0.838	0.807	0.774	0.749	0.734	0.712
	Median	0.972	0.942	0.912	0.888	0.871	0.851	0.835

	Counterfactual of population size at 5 year intervals							
Additional adult mortality	Estimate	yr.5	yr.10	yr.15	yr.20	yr.25	yr.30	yr.35
	Upper 95%	1.049	1.044	1.044	1.028	1.019	1.010	0.986
200	Lower 95%	0.901	0.839	0.796	0.759	0.730	0.714	0.699
	Median	0.967	0.932	0.904	0.877	0.856	0.836	0.817
	Upper 95%	1.042	1.034	1.030	1.008	0.998	0.979	0.968
225	Lower 95%	0.891	0.831	0.782	0.745	0.719	0.691	0.669
	Median	0.959	0.921	0.888	0.859	0.834	0.814	0.791
	Upper 95%	1.041	1.028	1.007	0.978	0.963	0.959	0.948
250	Lower 95%	0.886	0.814	0.771	0.733	0.702	0.681	0.654
	Median	0.953	0.913	0.876	0.848	0.818	0.797	0.775
	Upper 95%	1.040	1.019	0.997	0.973	0.964	0.953	0.924
275	Lower 95%	0.881	0.817	0.763	0.724	0.699	0.668	0.636
	Median	0.953	0.905	0.868	0.833	0.805	0.777	0.753
	Upper 95%	1.030	1.009	0.979	0.957	0.932	0.909	0.885
300	Lower 95%	0.883	0.807	0.751	0.700	0.675	0.643	0.620
	Median	0.949	0.899	0.852	0.817	0.783	0.756	0.730
	Upper 95%	1.023	0.997	0.975	0.940	0.916	0.889	0.861
325	Lower 95%	0.878	0.804	0.749	0.699	0.667	0.638	0.602
	Median	0.946	0.892	0.846	0.803	0.771	0.742	0.715
	Upper 95%	1.018	0.986	0.953	0.918	0.899	0.863	0.845
350	Lower 95%	0.877	0.792	0.732	0.682	0.641	0.621	0.582
	Median	0.942	0.881	0.832	0.789	0.753	0.721	0.691
	Upper 95%	1.018	0.989	0.954	0.913	0.889	0.855	0.820
375	Lower 95%	0.869	0.789	0.721	0.668	0.633	0.597	0.572
	Median	0.937	0.871	0.819	0.774	0.736	0.704	0.672
	Upper 95%	1.016	0.966	0.931	0.888	0.849	0.820	0.786

	Counterfactual of population size at 5 year intervals							
Additional adult mortality	Estimate	yr.5	yr.10	yr.15	yr.20	yr.25	yr.30	yr.35
400	Lower 95%	0.863	0.777	0.713	0.658	0.617	0.584	0.555
	Median	0.933	0.865	0.806	0.761	0.723	0.686	0.654
	Upper 95%	1.003	0.960	0.924	0.875	0.848	0.808	0.770
425	Lower 95%	0.862	0.773	0.700	0.646	0.612	0.574	0.535
	Median	0.930	0.861	0.800	0.748	0.707	0.666	0.636
	Upper 95%	1.004	0.950	0.913	0.876	0.833	0.793	0.751
450	Lower 95%	0.860	0.764	0.692	0.634	0.592	0.557	0.519
	Median	0.925	0.850	0.786	0.735	0.692	0.650	0.617
	Upper 95%	0.997	0.943	0.898	0.853	0.808	0.772	0.736
475	Lower 95%	0.852	0.757	0.687	0.623	0.576	0.536	0.503
	Median	0.922	0.841	0.777	0.722	0.675	0.634	0.599
	Upper 95%	0.992	0.933	0.883	0.828	0.782	0.745	0.708
500	Lower 95%	0.849	0.744	0.665	0.612	0.557	0.521	0.487
	Median	0.917	0.834	0.766	0.708	0.659	0.616	0.580
	Upper 95%	0.993	0.924	0.869	0.812	0.769	0.721	0.684

Table A2_2.3. Gannet, demographic rate set 1, counterfactuals of population growth rate calculated between year 5 and year 35, using a matched runs method, from 1000 density dependent simulations.

Additional adult mortality	Lower 95%	Median	Upper 95%
0	1.000	1.000	1.000
25	0.999	0.999	0.999
50	0.999	0.999	0.999
75	0.998	0.998	0.998
100	0.997	0.997	0.997
125	0.996	0.997	0.997
150	0.996	0.996	0.996
175	0.995	0.995	0.995
200	0.994	0.994	0.995
225	0.993	0.994	0.994
250	0.992	0.993	0.993
275	0.992	0.992	0.993
300	0.991	0.991	0.992
325	0.990	0.991	0.991
350	0.989	0.990	0.990
375	0.988	0.989	0.989
400	0.987	0.988	0.989
425	0.987	0.987	0.988
450	0.986	0.986	0.987
475	0.985	0.986	0.986
500	0.984	0.985	0.985

Table A2_2.4. Gannet, demographic rate set 1, counterfactuals of population growth rate calculated between year 5 and year 35, using a non-matched runs method, from 1000 density dependent simulations.

Additional adult mortality	Lower 95%	Median	Upper 95%
0	1.000	1.000	1.000
25	0.994	0.999	1.005
50	0.993	0.999	1.004
75	0.993	0.998	1.003
100	0.992	0.997	1.003
125	0.991	0.997	1.002
150	0.991	0.996	1.001
175	0.989	0.995	1.001
200	0.989	0.994	1.000
225	0.988	0.994	0.999
250	0.988	0.993	0.999
275	0.986	0.992	0.997
300	0.986	0.991	0.997
325	0.985	0.991	0.996
350	0.984	0.990	0.996
375	0.984	0.989	0.994
400	0.982	0.988	0.994
425	0.982	0.987	0.993
450	0.981	0.987	0.992
475	0.980	0.986	0.991
500	0.979	0.985	0.990

Table A2_3.1. Gannet, demographic rate set 2, counterfactuals of population size after 5 to 35 years, estimated using a matched runs method, from 1000 density independent simulations.

Additional adult mortality	Counterfactual of population size at 5 year intervals							
	Estimate	yr.5	yr.10	yr.15	yr.20	yr.25	yr.30	yr.35
0	Lower 95%	1.000	1.000	1.000	1.000	1.000	1.000	1.000
	Median	1.000	1.000	1.000	1.000	1.000	1.000	1.000
	Upper 95%	1.000	1.000	1.000	1.000	1.000	1.000	1.000
25	Lower 95%	0.995	0.990	0.984	0.978	0.973	0.967	0.962
	Median	0.995	0.990	0.984	0.979	0.973	0.968	0.962
	Upper 95%	0.996	0.990	0.985	0.979	0.974	0.968	0.963
50	Lower 95%	0.991	0.979	0.968	0.957	0.946	0.936	0.925
	Median	0.991	0.980	0.969	0.958	0.947	0.936	0.926
	Upper 95%	0.991	0.980	0.969	0.959	0.948	0.937	0.927
75	Lower 95%	0.986	0.969	0.953	0.937	0.921	0.905	0.890
	Median	0.987	0.970	0.954	0.937	0.922	0.906	0.891
	Upper 95%	0.987	0.970	0.954	0.938	0.923	0.907	0.892
100	Lower 95%	0.981	0.959	0.938	0.916	0.896	0.876	0.856
	Median	0.982	0.960	0.939	0.917	0.897	0.877	0.857
	Upper 95%	0.983	0.961	0.940	0.919	0.898	0.878	0.858
125	Lower 95%	0.977	0.949	0.922	0.896	0.871	0.847	0.823
	Median	0.978	0.950	0.924	0.898	0.873	0.848	0.825
	Upper 95%	0.978	0.951	0.925	0.899	0.874	0.850	0.826
150	Lower 95%	0.972	0.939	0.908	0.877	0.848	0.819	0.792
	Median	0.973	0.941	0.909	0.879	0.849	0.821	0.793
	Upper 95%	0.974	0.942	0.910	0.880	0.851	0.823	0.795
175	Lower 95%	0.968	0.930	0.893	0.858	0.824	0.792	0.761
	Median	0.969	0.931	0.895	0.860	0.826	0.794	0.763

	Counterfactual of population size at 5 year intervals							
Additional adult mortality	Estimate	yr.5	yr.10	yr.15	yr.20	yr.25	yr.30	yr.35
	Upper 95%	0.970	0.932	0.896	0.862	0.828	0.796	0.765
200	Lower 95%	0.963	0.920	0.879	0.839	0.802	0.766	0.732
	Median	0.964	0.922	0.881	0.841	0.804	0.768	0.734
	Upper 95%	0.965	0.923	0.882	0.844	0.806	0.771	0.737
225	Lower 95%	0.959	0.910	0.865	0.821	0.780	0.741	0.704
	Median	0.960	0.912	0.867	0.823	0.782	0.743	0.706
	Upper 95%	0.961	0.914	0.869	0.826	0.785	0.746	0.709
250	Lower 95%	0.954	0.901	0.851	0.803	0.759	0.716	0.677
	Median	0.956	0.903	0.853	0.806	0.761	0.719	0.679
	Upper 95%	0.957	0.905	0.855	0.808	0.764	0.722	0.682
275	Lower 95%	0.950	0.891	0.837	0.786	0.738	0.693	0.651
	Median	0.951	0.893	0.839	0.788	0.741	0.696	0.654
	Upper 95%	0.953	0.896	0.842	0.791	0.743	0.698	0.656
300	Lower 95%	0.945	0.882	0.823	0.769	0.718	0.670	0.626
	Median	0.947	0.884	0.826	0.771	0.721	0.673	0.629
	Upper 95%	0.948	0.887	0.829	0.774	0.723	0.676	0.632
325	Lower 95%	0.941	0.873	0.810	0.752	0.698	0.648	0.602
	Median	0.943	0.875	0.813	0.755	0.701	0.651	0.605
	Upper 95%	0.944	0.878	0.815	0.758	0.704	0.654	0.608
350	Lower 95%	0.936	0.864	0.797	0.736	0.679	0.627	0.578
	Median	0.938	0.866	0.800	0.739	0.682	0.630	0.581
	Upper 95%	0.940	0.869	0.803	0.742	0.685	0.633	0.585
375	Lower 95%	0.932	0.855	0.784	0.719	0.660	0.605	0.555
	Median	0.934	0.857	0.787	0.723	0.663	0.609	0.559
	Upper 95%	0.936	0.860	0.790	0.726	0.667	0.613	0.563

	Counterfactual of population size at 5 year intervals							
Additional adult mortality	Estimate	yr.5	yr.10	yr.15	yr.20	yr.25	yr.30	yr.35
400	Lower 95%	0.927	0.846	0.771	0.704	0.642	0.586	0.534
	Median	0.930	0.848	0.774	0.707	0.645	0.589	0.538
	Upper 95%	0.932	0.851	0.778	0.710	0.649	0.593	0.541
425	Lower 95%	0.923	0.837	0.759	0.688	0.624	0.566	0.513
	Median	0.925	0.840	0.762	0.691	0.628	0.570	0.517
	Upper 95%	0.928	0.843	0.765	0.695	0.631	0.573	0.520
450	Lower 95%	0.919	0.828	0.746	0.673	0.607	0.547	0.494
	Median	0.921	0.831	0.750	0.677	0.611	0.551	0.497
	Upper 95%	0.924	0.834	0.753	0.680	0.614	0.555	0.501
475	Lower 95%	0.914	0.819	0.734	0.658	0.590	0.529	0.474
	Median	0.917	0.822	0.738	0.662	0.594	0.533	0.478
	Upper 95%	0.919	0.826	0.742	0.666	0.598	0.537	0.482
500	Lower 95%	0.910	0.811	0.723	0.644	0.574	0.511	0.456
	Median	0.913	0.814	0.726	0.648	0.578	0.515	0.460
	Upper 95%	0.915	0.817	0.729	0.652	0.581	0.519	0.463

Table A2_3.2. Gannet, demographic rate set 2, counterfactuals of population size after 5 to 35 years, estimated using a non-matched runs method, from 1000 density independent simulations.

Additional adult mortality	Counterfactual of population size at 5 year intervals							
	Estimate	yr.5	yr.10	yr.15	yr.20	yr.25	yr.30	yr.35
0	Lower 95%	1.000	1.000	1.000	1.000	1.000	1.000	1.000
	Median	1.000	1.000	1.000	1.000	1.000	1.000	1.000
	Upper 95%	1.000	1.000	1.000	1.000	1.000	1.000	1.000
25	Lower 95%	0.910	0.866	0.827	0.805	0.783	0.762	0.740
	Median	0.994	0.992	0.983	0.982	0.974	0.971	0.964
	Upper 95%	1.093	1.134	1.171	1.197	1.214	1.242	1.257
50	Lower 95%	0.907	0.846	0.807	0.786	0.766	0.733	0.714
	Median	0.989	0.980	0.962	0.957	0.951	0.937	0.928
	Upper 95%	1.089	1.127	1.146	1.177	1.198	1.214	1.211
75	Lower 95%	0.904	0.854	0.807	0.767	0.739	0.707	0.685
	Median	0.988	0.973	0.955	0.939	0.929	0.911	0.895
	Upper 95%	1.082	1.109	1.123	1.142	1.132	1.152	1.166
100	Lower 95%	0.894	0.835	0.802	0.756	0.714	0.685	0.656
	Median	0.982	0.962	0.935	0.924	0.905	0.888	0.866
	Upper 95%	1.079	1.105	1.120	1.132	1.141	1.136	1.122
125	Lower 95%	0.888	0.822	0.780	0.740	0.712	0.665	0.628
	Median	0.979	0.951	0.924	0.902	0.879	0.854	0.836
	Upper 95%	1.079	1.098	1.088	1.103	1.100	1.111	1.107
150	Lower 95%	0.890	0.824	0.768	0.719	0.682	0.645	0.614
	Median	0.977	0.946	0.910	0.885	0.856	0.825	0.803
	Upper 95%	1.073	1.087	1.067	1.070	1.054	1.042	1.022
175	Lower 95%	0.882	0.809	0.755	0.708	0.655	0.621	0.588
	Median	0.969	0.933	0.896	0.865	0.830	0.796	0.764

	Counterfactual of population size at 5 year intervals							
Additional adult mortality	Estimate	yr.5	yr.10	yr.15	yr.20	yr.25	yr.30	yr.35
	Upper 95%	1.068	1.067	1.066	1.052	1.036	1.025	0.997
200	Lower 95%	0.876	0.801	0.745	0.697	0.654	0.612	0.569
	Median	0.968	0.922	0.880	0.841	0.808	0.774	0.737
	Upper 95%	1.062	1.064	1.053	1.030	0.998	0.986	0.968
225	Lower 95%	0.873	0.795	0.742	0.684	0.635	0.588	0.552
	Median	0.962	0.914	0.863	0.824	0.785	0.749	0.707
	Upper 95%	1.058	1.046	1.027	1.003	0.967	0.941	0.914
250	Lower 95%	0.871	0.786	0.719	0.664	0.612	0.562	0.520
	Median	0.954	0.904	0.853	0.806	0.765	0.722	0.682
	Upper 95%	1.047	1.045	1.005	0.975	0.955	0.943	0.904
275	Lower 95%	0.863	0.779	0.709	0.643	0.593	0.545	0.501
	Median	0.953	0.896	0.840	0.789	0.742	0.696	0.653
	Upper 95%	1.047	1.026	0.994	0.973	0.928	0.879	0.843
300	Lower 95%	0.863	0.778	0.699	0.642	0.585	0.536	0.487
	Median	0.949	0.888	0.825	0.773	0.723	0.679	0.629
	Upper 95%	1.045	1.019	0.979	0.936	0.894	0.872	0.830
325	Lower 95%	0.861	0.768	0.689	0.624	0.568	0.507	0.466
	Median	0.942	0.876	0.813	0.757	0.705	0.653	0.606
	Upper 95%	1.033	1.014	0.968	0.926	0.897	0.833	0.798
350	Lower 95%	0.856	0.757	0.679	0.606	0.550	0.493	0.443
	Median	0.943	0.871	0.801	0.743	0.685	0.635	0.586
	Upper 95%	1.032	1.002	0.950	0.904	0.844	0.801	0.747
375	Lower 95%	0.851	0.745	0.667	0.596	0.536	0.479	0.427
	Median	0.934	0.859	0.787	0.724	0.662	0.612	0.562
	Upper 95%	1.023	0.987	0.939	0.876	0.829	0.796	0.734

	Counterfactual of population size at 5 year intervals							
Additional adult mortality	Estimate	yr.5	yr.10	yr.15	yr.20	yr.25	yr.30	yr.35
400	Lower 95%	0.849	0.736	0.655	0.584	0.521	0.465	0.415
	Median	0.931	0.851	0.774	0.707	0.644	0.585	0.532
	Upper 95%	1.022	0.980	0.924	0.861	0.812	0.761	0.707
425	Lower 95%	0.847	0.728	0.647	0.573	0.502	0.445	0.397
	Median	0.928	0.845	0.766	0.696	0.632	0.576	0.521
	Upper 95%	1.020	0.975	0.912	0.857	0.797	0.744	0.682
450	Lower 95%	0.834	0.727	0.633	0.552	0.488	0.430	0.384
	Median	0.923	0.836	0.751	0.680	0.614	0.555	0.499
	Upper 95%	1.005	0.951	0.879	0.820	0.766	0.708	0.650
475	Lower 95%	0.834	0.723	0.621	0.546	0.480	0.423	0.367
	Median	0.918	0.826	0.740	0.665	0.597	0.537	0.482
	Upper 95%	1.010	0.947	0.873	0.804	0.736	0.673	0.611
500	Lower 95%	0.833	0.716	0.619	0.539	0.473	0.407	0.357
	Median	0.912	0.816	0.728	0.649	0.582	0.519	0.462
	Upper 95%	1.010	0.935	0.853	0.788	0.717	0.661	0.601

Table A2_3.3. Gannet, demographic rate set 2, counterfactuals of population growth rate calculated between year 5 and year 35, using a matched runs method, from 1000 density independent simulations.

Additional adult mortality	Lower 95%	Median	Upper 95%
0	1.000	1.000	1.000
25	0.999	0.999	0.999
50	0.998	0.998	0.998
75	0.997	0.997	0.997
100	0.995	0.995	0.996
125	0.994	0.994	0.994
150	0.993	0.993	0.993
175	0.992	0.992	0.992
200	0.991	0.991	0.991
225	0.990	0.990	0.990
250	0.989	0.989	0.989
275	0.987	0.988	0.988
300	0.986	0.986	0.987
325	0.985	0.985	0.985
350	0.984	0.984	0.984
375	0.983	0.983	0.983
400	0.982	0.982	0.982
425	0.981	0.981	0.981
450	0.979	0.980	0.980
475	0.978	0.979	0.979
500	0.977	0.977	0.978

Table A2_3.4. Gannet, demographic rate set 2, counterfactuals of population growth rate calculated between year 5 and year 35, using a non-matched runs method, from 1000 density independent simulations.

Additional adult mortality	Lower 95%	Median	Upper 95%
0	1.000	1.000	1.000
25	0.991	0.999	1.007
50	0.990	0.998	1.007
75	0.988	0.997	1.005
100	0.986	0.996	1.004
125	0.986	0.995	1.003
150	0.985	0.993	1.001
175	0.984	0.992	1.000
200	0.983	0.991	1.000
225	0.982	0.990	0.998
250	0.980	0.989	0.997
275	0.980	0.988	0.995
300	0.979	0.986	0.995
325	0.977	0.985	0.993
350	0.976	0.984	0.992
375	0.975	0.983	0.991
400	0.974	0.982	0.990
425	0.973	0.981	0.989
450	0.972	0.980	0.987
475	0.970	0.979	0.986
500	0.969	0.978	0.985

Table A2_4.1. Gannet, demographic rate set 2, counterfactuals of population size after 5 to 35 years, estimated using a matched runs method, from 1000 density dependent simulations.

Additional adult mortality	Counterfactual of population size at 5 year intervals							
	Estimate	yr.5	yr.10	yr.15	yr.20	yr.25	yr.30	yr.35
0	Lower 95%	1.000	1.000	1.000	1.000	1.000	1.000	1.000
	Median	1.000	1.000	1.000	1.000	1.000	1.000	1.000
	Upper 95%	1.000	1.000	1.000	1.000	1.000	1.000	1.000
25	Lower 95%	0.996	0.991	0.987	0.984	0.980	0.978	0.975
	Median	0.996	0.991	0.987	0.984	0.981	0.978	0.976
	Upper 95%	0.996	0.992	0.988	0.985	0.982	0.979	0.977
50	Lower 95%	0.991	0.982	0.974	0.967	0.961	0.955	0.950
	Median	0.992	0.983	0.975	0.968	0.962	0.957	0.952
	Upper 95%	0.992	0.983	0.975	0.969	0.963	0.959	0.955
75	Lower 95%	0.987	0.974	0.962	0.951	0.942	0.933	0.926
	Median	0.988	0.974	0.962	0.952	0.943	0.936	0.929
	Upper 95%	0.988	0.975	0.963	0.954	0.945	0.938	0.932
100	Lower 95%	0.983	0.965	0.949	0.935	0.923	0.912	0.902
	Median	0.983	0.966	0.950	0.937	0.925	0.915	0.906
	Upper 95%	0.984	0.966	0.951	0.938	0.927	0.918	0.910
125	Lower 95%	0.979	0.957	0.937	0.919	0.904	0.890	0.878
	Median	0.979	0.957	0.938	0.921	0.907	0.894	0.883
	Upper 95%	0.980	0.958	0.939	0.923	0.910	0.898	0.888
150	Lower 95%	0.975	0.948	0.925	0.904	0.885	0.869	0.854
	Median	0.975	0.949	0.926	0.906	0.889	0.874	0.861
	Upper 95%	0.976	0.949	0.927	0.909	0.892	0.878	0.866
175	Lower 95%	0.970	0.940	0.912	0.888	0.867	0.848	0.831
	Median	0.971	0.940	0.914	0.891	0.871	0.853	0.838

	Counterfactual of population size at 5 year intervals							
Additional adult mortality	Estimate	yr.5	yr.10	yr.15	yr.20	yr.25	yr.30	yr.35
	Upper 95%	0.972	0.941	0.915	0.893	0.875	0.859	0.844
200	Lower 95%	0.966	0.931	0.900	0.873	0.849	0.828	0.809
	Median	0.967	0.932	0.902	0.876	0.853	0.834	0.816
	Upper 95%	0.968	0.933	0.904	0.879	0.857	0.839	0.823
225	Lower 95%	0.962	0.923	0.888	0.858	0.831	0.807	0.786
	Median	0.963	0.924	0.890	0.861	0.836	0.814	0.794
	Upper 95%	0.964	0.925	0.892	0.864	0.841	0.821	0.803
250	Lower 95%	0.958	0.914	0.876	0.843	0.813	0.787	0.764
	Median	0.959	0.916	0.878	0.847	0.819	0.795	0.773
	Upper 95%	0.960	0.917	0.880	0.850	0.824	0.802	0.783
275	Lower 95%	0.954	0.906	0.865	0.828	0.796	0.768	0.742
	Median	0.955	0.907	0.867	0.832	0.802	0.775	0.752
	Upper 95%	0.956	0.909	0.869	0.836	0.807	0.783	0.761
300	Lower 95%	0.950	0.898	0.853	0.813	0.779	0.748	0.721
	Median	0.951	0.899	0.855	0.818	0.785	0.757	0.732
	Upper 95%	0.952	0.900	0.858	0.822	0.791	0.764	0.741
325	Lower 95%	0.946	0.890	0.842	0.799	0.762	0.729	0.701
	Median	0.947	0.891	0.844	0.803	0.768	0.738	0.711
	Upper 95%	0.948	0.893	0.846	0.808	0.775	0.747	0.722
350	Lower 95%	0.941	0.882	0.830	0.785	0.746	0.711	0.680
	Median	0.943	0.883	0.833	0.790	0.752	0.720	0.691
	Upper 95%	0.944	0.884	0.835	0.794	0.758	0.728	0.702
375	Lower 95%	0.937	0.873	0.818	0.771	0.729	0.692	0.659
	Median	0.939	0.875	0.821	0.776	0.736	0.702	0.672
	Upper 95%	0.941	0.877	0.824	0.780	0.743	0.710	0.683

	Counterfactual of population size at 5 year intervals							
Additional adult mortality	Estimate	yr.5	yr.10	yr.15	yr.20	yr.25	yr.30	yr.35
400	Lower 95%	0.933	0.865	0.807	0.757	0.713	0.674	0.640
	Median	0.935	0.867	0.810	0.762	0.720	0.684	0.652
	Upper 95%	0.937	0.869	0.813	0.767	0.728	0.694	0.665
425	Lower 95%	0.929	0.857	0.796	0.743	0.697	0.656	0.621
	Median	0.931	0.859	0.799	0.748	0.704	0.666	0.633
	Upper 95%	0.933	0.861	0.802	0.754	0.713	0.677	0.646
450	Lower 95%	0.925	0.850	0.785	0.730	0.682	0.640	0.602
	Median	0.927	0.851	0.788	0.735	0.689	0.649	0.614
	Upper 95%	0.929	0.853	0.792	0.740	0.697	0.659	0.626
475	Lower 95%	0.921	0.842	0.774	0.716	0.666	0.622	0.584
	Median	0.923	0.844	0.777	0.721	0.673	0.632	0.596
	Upper 95%	0.925	0.845	0.781	0.727	0.682	0.643	0.610
500	Lower 95%	0.917	0.834	0.763	0.703	0.650	0.605	0.566
	Median	0.919	0.836	0.767	0.708	0.659	0.615	0.578
	Upper 95%	0.921	0.838	0.770	0.714	0.667	0.626	0.591

Table A2_4.2. Gannet, demographic rate set 2, counterfactuals of population size after 5 to 35 years, estimated using a non-matched runs method, from 1000 density dependent simulations.

Additional adult mortality	Counterfactual of population size at 5 year intervals							
	Estimate	yr.5	yr.10	yr.15	yr.20	yr.25	yr.30	yr.35
0	Lower 95%	1.000	1.000	1.000	1.000	1.000	1.000	1.000
	Median	1.000	1.000	1.000	1.000	1.000	1.000	1.000
	Upper 95%	1.000	1.000	1.000	1.000	1.000	1.000	1.000
25	Lower 95%	0.920	0.890	0.874	0.857	0.850	0.842	0.833
	Median	0.994	0.993	0.984	0.983	0.978	0.974	0.975
	Upper 95%	1.068	1.108	1.118	1.122	1.130	1.142	1.145
50	Lower 95%	0.917	0.887	0.862	0.845	0.825	0.813	0.808
	Median	0.991	0.981	0.971	0.970	0.959	0.957	0.950
	Upper 95%	1.070	1.091	1.104	1.108	1.106	1.111	1.107
75	Lower 95%	0.920	0.879	0.852	0.832	0.807	0.795	0.802
	Median	0.984	0.972	0.957	0.949	0.940	0.933	0.927
	Upper 95%	1.060	1.083	1.087	1.090	1.092	1.085	1.086
100	Lower 95%	0.908	0.867	0.838	0.812	0.799	0.789	0.784
	Median	0.981	0.968	0.949	0.937	0.922	0.909	0.904
	Upper 95%	1.060	1.072	1.071	1.069	1.058	1.057	1.058
125	Lower 95%	0.910	0.862	0.828	0.810	0.783	0.766	0.754
	Median	0.976	0.956	0.939	0.923	0.906	0.894	0.881
	Upper 95%	1.057	1.065	1.061	1.049	1.045	1.035	1.027
150	Lower 95%	0.903	0.846	0.817	0.787	0.770	0.749	0.727
	Median	0.973	0.949	0.925	0.906	0.883	0.871	0.861
	Upper 95%	1.047	1.055	1.052	1.045	1.035	1.016	1.009
175	Lower 95%	0.897	0.845	0.806	0.770	0.751	0.722	0.709
	Median	0.968	0.937	0.913	0.891	0.870	0.849	0.834

	Counterfactual of population size at 5 year intervals							
Additional adult mortality	Estimate	yr.5	yr.10	yr.15	yr.20	yr.25	yr.30	yr.35
	Upper 95%	1.042	1.040	1.030	1.009	1.002	0.998	0.975
200	Lower 95%	0.898	0.837	0.799	0.761	0.737	0.705	0.692
	Median	0.967	0.930	0.899	0.875	0.850	0.834	0.815
	Upper 95%	1.039	1.031	1.013	0.996	0.976	0.968	0.954
225	Lower 95%	0.889	0.828	0.786	0.748	0.714	0.689	0.678
	Median	0.964	0.925	0.889	0.862	0.834	0.810	0.792
	Upper 95%	1.037	1.032	1.013	0.985	0.971	0.953	0.934
250	Lower 95%	0.888	0.822	0.772	0.735	0.706	0.680	0.659
	Median	0.959	0.919	0.879	0.847	0.816	0.795	0.774
	Upper 95%	1.034	1.017	0.991	0.976	0.955	0.934	0.914
275	Lower 95%	0.885	0.812	0.758	0.716	0.688	0.657	0.640
	Median	0.954	0.907	0.865	0.829	0.799	0.770	0.749
	Upper 95%	1.024	1.008	0.985	0.957	0.931	0.903	0.882
300	Lower 95%	0.884	0.808	0.744	0.711	0.677	0.647	0.620
	Median	0.950	0.902	0.856	0.818	0.783	0.755	0.733
	Upper 95%	1.028	1.006	0.972	0.944	0.917	0.886	0.856
325	Lower 95%	0.875	0.804	0.746	0.703	0.661	0.619	0.595
	Median	0.948	0.891	0.842	0.805	0.767	0.736	0.711
	Upper 95%	1.014	0.996	0.957	0.915	0.892	0.862	0.832
350	Lower 95%	0.874	0.797	0.741	0.693	0.646	0.619	0.584
	Median	0.944	0.885	0.833	0.791	0.753	0.719	0.689
	Upper 95%	1.014	0.986	0.944	0.899	0.878	0.847	0.813
375	Lower 95%	0.872	0.783	0.717	0.668	0.630	0.590	0.565
	Median	0.939	0.875	0.821	0.777	0.738	0.705	0.672
	Upper 95%	1.009	0.976	0.937	0.884	0.853	0.816	0.788

	Counterfactual of population size at 5 year intervals							
Additional adult mortality	Estimate	yr.5	yr.10	yr.15	yr.20	yr.25	yr.30	yr.35
400	Lower 95%	0.861	0.772	0.709	0.658	0.615	0.585	0.554
	Median	0.933	0.868	0.807	0.760	0.719	0.684	0.650
	Upper 95%	1.002	0.970	0.923	0.873	0.834	0.804	0.764
425	Lower 95%	0.865	0.774	0.705	0.653	0.603	0.564	0.530
	Median	0.928	0.859	0.797	0.748	0.703	0.664	0.633
	Upper 95%	1.007	0.960	0.907	0.863	0.824	0.786	0.754
450	Lower 95%	0.859	0.761	0.694	0.641	0.592	0.550	0.525
	Median	0.925	0.852	0.785	0.734	0.685	0.647	0.611
	Upper 95%	0.997	0.956	0.902	0.840	0.808	0.763	0.734
475	Lower 95%	0.854	0.754	0.687	0.621	0.572	0.535	0.505
	Median	0.921	0.842	0.773	0.718	0.670	0.628	0.594
	Upper 95%	0.994	0.940	0.882	0.833	0.782	0.738	0.699
500	Lower 95%	0.852	0.754	0.674	0.611	0.562	0.522	0.491
	Median	0.919	0.835	0.763	0.707	0.657	0.613	0.574
	Upper 95%	0.990	0.928	0.861	0.812	0.766	0.726	0.685

Table A2_4.3. Gannet, demographic rate set 2, counterfactuals of population growth rate calculated between year 5 and year 35, using a matched runs method, from 1000 density dependent simulations.

Additional adult mortality	Lower 95%	Median	Upper 95%
0	1.000	1.000	1.000
25	0.999	0.999	0.999
50	0.999	0.999	0.999
75	0.998	0.998	0.998
100	0.997	0.997	0.997
125	0.996	0.997	0.997
150	0.996	0.996	0.996
175	0.995	0.995	0.995
200	0.994	0.994	0.995
225	0.993	0.994	0.994
250	0.992	0.993	0.993
275	0.992	0.992	0.992
300	0.991	0.991	0.992
325	0.990	0.990	0.991
350	0.989	0.990	0.990
375	0.988	0.989	0.989
400	0.987	0.988	0.989
425	0.987	0.987	0.988
450	0.986	0.986	0.987
475	0.985	0.986	0.986
500	0.984	0.985	0.985

Table A2_4.4. Gannet, demographic rate set 2, counterfactuals of population growth rate calculated between year 5 and year 35, using a non-matched runs method, from 1000 density dependent simulations.

Additional adult mortality	Lower 95%	Median	Upper 95%
0	1.000	1.000	1.000
25	0.994	0.999	1.004
50	0.993	0.999	1.004
75	0.992	0.998	1.004
100	0.992	0.997	1.002
125	0.991	0.997	1.002
150	0.990	0.996	1.001
175	0.990	0.995	1.000
200	0.989	0.994	1.000
225	0.988	0.994	0.999
250	0.987	0.993	0.998
275	0.987	0.992	0.998
300	0.986	0.991	0.997
325	0.985	0.990	0.996
350	0.984	0.990	0.995
375	0.984	0.989	0.994
400	0.982	0.988	0.994
425	0.982	0.987	0.993
450	0.981	0.986	0.992
475	0.980	0.985	0.991
500	0.979	0.985	0.990

Table A2_5.1. Kittiwake, demographic rate set 1, counterfactuals of population size after 5 to 35 years, estimated using a matched runs method, from 1000 density independent simulations.

Additional adult mortality	Counterfactual of population size at 5 year intervals							
	Estimate	yr.5	yr.10	yr.15	yr.20	yr.25	yr.30	yr.35
0	Lower 95%	1.000	1.000	1.000	1.000	1.000	1.000	1.000
	Median	1.000	1.000	1.000	1.000	1.000	1.000	1.000
	Upper 95%	1.000	1.000	1.000	1.000	1.000	1.000	1.000
50	Lower 95%	0.998	0.995	0.992	0.989	0.986	0.984	0.981
	Median	0.998	0.995	0.992	0.989	0.987	0.984	0.981
	Upper 95%	0.998	0.995	0.992	0.990	0.987	0.984	0.981
100	Lower 95%	0.995	0.990	0.984	0.978	0.973	0.967	0.962
	Median	0.996	0.990	0.984	0.979	0.973	0.968	0.962
	Upper 95%	0.996	0.990	0.985	0.979	0.974	0.968	0.963
150	Lower 95%	0.993	0.984	0.976	0.968	0.960	0.951	0.943
	Median	0.993	0.985	0.977	0.968	0.960	0.952	0.944
	Upper 95%	0.994	0.985	0.977	0.969	0.961	0.953	0.945
200	Lower 95%	0.991	0.979	0.968	0.957	0.947	0.936	0.925
	Median	0.991	0.980	0.969	0.958	0.947	0.937	0.926
	Upper 95%	0.991	0.981	0.970	0.959	0.948	0.938	0.927
250	Lower 95%	0.988	0.974	0.960	0.947	0.934	0.920	0.907
	Median	0.989	0.975	0.961	0.948	0.935	0.922	0.909
	Upper 95%	0.989	0.976	0.962	0.949	0.936	0.923	0.910
300	Lower 95%	0.986	0.969	0.953	0.937	0.921	0.905	0.890
	Median	0.987	0.970	0.954	0.938	0.922	0.907	0.892
	Upper 95%	0.987	0.971	0.955	0.939	0.923	0.908	0.893
350	Lower 95%	0.984	0.964	0.945	0.926	0.908	0.890	0.873
	Median	0.984	0.965	0.946	0.928	0.910	0.892	0.875

	Counterfactual of population size at 5 year intervals							
Additional adult mortality	Estimate	yr.5	yr.10	yr.15	yr.20	yr.25	yr.30	yr.35
	Upper 95%	0.985	0.966	0.948	0.929	0.911	0.894	0.876
400	Lower 95%	0.981	0.959	0.937	0.916	0.896	0.876	0.856
	Median	0.982	0.960	0.939	0.918	0.898	0.878	0.858
	Upper 95%	0.983	0.961	0.940	0.920	0.899	0.879	0.860
450	Lower 95%	0.979	0.954	0.930	0.907	0.884	0.861	0.840
	Median	0.980	0.955	0.932	0.908	0.885	0.863	0.842
	Upper 95%	0.981	0.957	0.933	0.910	0.887	0.865	0.844
500	Lower 95%	0.977	0.949	0.922	0.897	0.871	0.847	0.823
	Median	0.978	0.951	0.924	0.899	0.874	0.849	0.826
	Upper 95%	0.979	0.952	0.926	0.900	0.876	0.852	0.828
550	Lower 95%	0.974	0.944	0.915	0.887	0.859	0.833	0.807
	Median	0.975	0.946	0.917	0.889	0.862	0.835	0.810
	Upper 95%	0.977	0.947	0.919	0.891	0.864	0.838	0.813
600	Lower 95%	0.972	0.939	0.908	0.877	0.848	0.819	0.792
	Median	0.973	0.941	0.910	0.879	0.850	0.822	0.795
	Upper 95%	0.974	0.943	0.912	0.882	0.853	0.825	0.797
650	Lower 95%	0.970	0.934	0.900	0.868	0.836	0.806	0.776
	Median	0.971	0.936	0.902	0.870	0.839	0.808	0.779
	Upper 95%	0.972	0.938	0.905	0.872	0.841	0.811	0.783
700	Lower 95%	0.968	0.930	0.893	0.858	0.825	0.793	0.762
	Median	0.969	0.931	0.895	0.861	0.827	0.795	0.765
	Upper 95%	0.970	0.933	0.898	0.864	0.830	0.798	0.768
750	Lower 95%	0.965	0.925	0.886	0.849	0.813	0.779	0.747
	Median	0.967	0.927	0.888	0.851	0.816	0.782	0.750
	Upper 95%	0.968	0.929	0.891	0.854	0.819	0.786	0.753

	Counterfactual of population size at 5 year intervals							
Additional adult mortality	Estimate	yr.5	yr.10	yr.15	yr.20	yr.25	yr.30	yr.35
800	Lower 95%	0.963	0.920	0.879	0.839	0.802	0.766	0.732
	Median	0.965	0.922	0.881	0.842	0.805	0.770	0.736
	Upper 95%	0.966	0.924	0.884	0.845	0.808	0.773	0.739
850	Lower 95%	0.961	0.915	0.872	0.830	0.791	0.754	0.718
	Median	0.962	0.917	0.874	0.833	0.794	0.757	0.722
	Upper 95%	0.964	0.920	0.877	0.837	0.798	0.760	0.725
900	Lower 95%	0.958	0.910	0.865	0.821	0.780	0.741	0.704
	Median	0.960	0.913	0.867	0.824	0.783	0.745	0.708
	Upper 95%	0.962	0.915	0.870	0.828	0.787	0.748	0.711
950	Lower 95%	0.956	0.906	0.858	0.812	0.769	0.729	0.691
	Median	0.958	0.908	0.861	0.816	0.773	0.733	0.694
	Upper 95%	0.960	0.911	0.864	0.819	0.777	0.736	0.698
1000	Lower 95%	0.954	0.901	0.851	0.803	0.759	0.717	0.677
	Median	0.956	0.903	0.854	0.807	0.762	0.721	0.681
	Upper 95%	0.958	0.906	0.857	0.810	0.766	0.724	0.685
1050	Lower 95%	0.952	0.896	0.844	0.795	0.748	0.705	0.664
	Median	0.954	0.899	0.847	0.798	0.752	0.709	0.668
	Upper 95%	0.956	0.902	0.850	0.802	0.756	0.713	0.673
1100	Lower 95%	0.949	0.891	0.837	0.786	0.738	0.693	0.651
	Median	0.951	0.894	0.840	0.790	0.742	0.697	0.655
	Upper 95%	0.954	0.897	0.844	0.793	0.746	0.701	0.659
1150	Lower 95%	0.947	0.887	0.830	0.777	0.728	0.682	0.638
	Median	0.949	0.890	0.833	0.781	0.732	0.686	0.643
	Upper 95%	0.951	0.892	0.837	0.785	0.736	0.690	0.647
1200	Lower 95%	0.945	0.882	0.823	0.769	0.718	0.671	0.626

	Counterfactual of population size at 5 year intervals							
Additional adult mortality	Estimate	yr.5	yr.10	yr.15	yr.20	yr.25	yr.30	yr.35
	Median	0.947	0.885	0.827	0.773	0.722	0.675	0.630
	Upper 95%	0.949	0.888	0.831	0.777	0.726	0.679	0.635
	Lower 95%	0.943	0.877	0.817	0.760	0.708	0.659	0.614
1250	Median	0.945	0.880	0.820	0.764	0.712	0.664	0.618
	Upper 95%	0.947	0.884	0.824	0.768	0.716	0.668	0.623
	Lower 95%	0.940	0.873	0.810	0.752	0.698	0.648	0.602
1300	Median	0.943	0.876	0.814	0.756	0.702	0.653	0.606
	Upper 95%	0.945	0.879	0.818	0.761	0.707	0.658	0.611
	Lower 95%	0.938	0.868	0.803	0.744	0.689	0.637	0.590
1350	Median	0.941	0.871	0.807	0.748	0.693	0.642	0.595
	Upper 95%	0.943	0.875	0.811	0.752	0.697	0.646	0.600
	Lower 95%	0.936	0.863	0.797	0.736	0.679	0.627	0.579
1400	Median	0.939	0.867	0.801	0.740	0.684	0.631	0.583
	Upper 95%	0.941	0.871	0.805	0.744	0.688	0.636	0.588
	Lower 95%	0.934	0.859	0.790	0.727	0.669	0.616	0.567
1450	Median	0.936	0.862	0.795	0.732	0.674	0.621	0.572
	Upper 95%	0.939	0.866	0.799	0.737	0.679	0.626	0.577
	Lower 95%	0.931	0.854	0.784	0.720	0.660	0.606	0.557
1500	Median	0.934	0.858	0.788	0.724	0.665	0.611	0.561
	Upper 95%	0.937	0.862	0.793	0.729	0.670	0.616	0.566
	Lower 95%	0.929	0.850	0.778	0.711	0.651	0.596	0.545
1550	Median	0.932	0.854	0.782	0.716	0.656	0.601	0.550
	Upper 95%	0.935	0.858	0.786	0.721	0.660	0.605	0.555
	Lower 95%	0.927	0.845	0.771	0.704	0.642	0.586	0.535
1600	Median	0.930	0.849	0.776	0.708	0.647	0.591	0.540
	Upper 95%							

	Counterfactual of population size at 5 year intervals							
Additional adult mortality	Estimate	yr.5	yr.10	yr.15	yr.20	yr.25	yr.30	yr.35
	Upper 95%	0.933	0.853	0.780	0.714	0.652	0.596	0.545

Table A2_5.2. Kittiwake, demographic rate set 1, counterfactuals of population size after 5 to 35 years, estimated using a non-matched runs method, from 1000 density independent simulations.

Additional adult mortality	Counterfactual of population size at 5 year intervals							
	Estimate	yr.5	yr.10	yr.15	yr.20	yr.25	yr.30	yr.35
0	Lower 95%	1.000	1.000	1.000	1.000	1.000	1.000	1.000
	Median	1.000	1.000	1.000	1.000	1.000	1.000	1.000
	Upper 95%	1.000	1.000	1.000	1.000	1.000	1.000	1.000
50	Lower 95%	0.838	0.753	0.692	0.673	0.650	0.621	0.599
	Median	1.000	0.999	0.986	0.984	0.984	0.987	0.988
	Upper 95%	1.207	1.294	1.375	1.427	1.549	1.580	1.693
100	Lower 95%	0.820	0.754	0.697	0.666	0.629	0.603	0.587
	Median	0.991	0.983	0.981	0.980	0.971	0.962	0.955
	Upper 95%	1.212	1.292	1.384	1.440	1.498	1.537	1.616
150	Lower 95%	0.831	0.745	0.685	0.664	0.633	0.592	0.567
	Median	0.992	0.987	0.980	0.966	0.956	0.943	0.936
	Upper 95%	1.194	1.279	1.364	1.432	1.500	1.518	1.568
200	Lower 95%	0.830	0.748	0.680	0.641	0.598	0.569	0.544
	Median	0.990	0.983	0.971	0.964	0.944	0.940	0.936
	Upper 95%	1.181	1.286	1.330	1.385	1.445	1.453	1.477
250	Lower 95%	0.828	0.746	0.687	0.634	0.616	0.577	0.541
	Median	0.986	0.978	0.962	0.948	0.940	0.939	0.927
	Upper 95%	1.180	1.281	1.312	1.391	1.429	1.464	1.514
300	Lower 95%	0.820	0.748	0.668	0.638	0.590	0.566	0.529
	Median	0.994	0.969	0.966	0.950	0.925	0.911	0.893
	Upper 95%	1.176	1.243	1.326	1.392	1.416	1.443	1.489
350	Lower 95%	0.814	0.755	0.681	0.630	0.594	0.543	0.521
	Median	0.982	0.960	0.945	0.931	0.914	0.895	0.878

	Counterfactual of population size at 5 year intervals							
Additional adult mortality	Estimate	yr.5	yr.10	yr.15	yr.20	yr.25	yr.30	yr.35
	Upper 95%	1.173	1.239	1.323	1.389	1.408	1.448	1.499
400	Lower 95%	0.811	0.716	0.664	0.616	0.587	0.548	0.520
	Median	0.982	0.957	0.927	0.908	0.890	0.873	0.854
	Upper 95%	1.192	1.254	1.315	1.338	1.442	1.423	1.433
450	Lower 95%	0.813	0.711	0.655	0.610	0.569	0.533	0.495
	Median	0.978	0.949	0.935	0.910	0.885	0.865	0.842
	Upper 95%	1.182	1.263	1.303	1.354	1.358	1.418	1.412
500	Lower 95%	0.814	0.727	0.663	0.614	0.572	0.527	0.504
	Median	0.970	0.941	0.920	0.890	0.863	0.836	0.814
	Upper 95%	1.165	1.223	1.289	1.307	1.302	1.350	1.352
550	Lower 95%	0.814	0.720	0.645	0.589	0.557	0.491	0.460
	Median	0.977	0.948	0.925	0.890	0.866	0.835	0.814
	Upper 95%	1.173	1.235	1.283	1.357	1.350	1.343	1.387
600	Lower 95%	0.812	0.718	0.645	0.595	0.554	0.509	0.461
	Median	0.970	0.941	0.918	0.879	0.853	0.823	0.809
	Upper 95%	1.169	1.241	1.262	1.316	1.289	1.324	1.331
650	Lower 95%	0.817	0.718	0.640	0.574	0.543	0.490	0.444
	Median	0.972	0.938	0.908	0.872	0.840	0.807	0.780
	Upper 95%	1.174	1.228	1.275	1.328	1.317	1.294	1.340
700	Lower 95%	0.815	0.715	0.628	0.575	0.543	0.494	0.457
	Median	0.969	0.932	0.899	0.855	0.823	0.803	0.775
	Upper 95%	1.168	1.211	1.269	1.253	1.275	1.251	1.225
750	Lower 95%	0.802	0.717	0.632	0.584	0.527	0.491	0.445
	Median	0.965	0.927	0.885	0.854	0.810	0.780	0.743
	Upper 95%	1.169	1.211	1.257	1.258	1.251	1.257	1.294

	Counterfactual of population size at 5 year intervals							
Additional adult mortality	Estimate	yr.5	yr.10	yr.15	yr.20	yr.25	yr.30	yr.35
800	Lower 95%	0.807	0.698	0.617	0.545	0.502	0.465	0.431
	Median	0.964	0.919	0.877	0.839	0.796	0.768	0.738
	Upper 95%	1.163	1.193	1.225	1.255	1.234	1.224	1.225
850	Lower 95%	0.799	0.693	0.608	0.561	0.512	0.454	0.418
	Median	0.962	0.913	0.873	0.835	0.794	0.751	0.723
	Upper 95%	1.158	1.197	1.256	1.247	1.230	1.204	1.288
900	Lower 95%	0.800	0.685	0.609	0.562	0.501	0.454	0.424
	Median	0.959	0.912	0.870	0.822	0.781	0.745	0.715
	Upper 95%	1.149	1.184	1.210	1.240	1.194	1.187	1.190
950	Lower 95%	0.794	0.689	0.620	0.552	0.503	0.456	0.402
	Median	0.954	0.904	0.848	0.808	0.773	0.728	0.694
	Upper 95%	1.150	1.164	1.186	1.182	1.192	1.196	1.175
1000	Lower 95%	0.800	0.688	0.599	0.533	0.483	0.448	0.404
	Median	0.955	0.894	0.850	0.813	0.764	0.725	0.689
	Upper 95%	1.134	1.197	1.216	1.244	1.185	1.151	1.166
1050	Lower 95%	0.798	0.687	0.613	0.550	0.487	0.433	0.394
	Median	0.954	0.897	0.845	0.792	0.750	0.708	0.672
	Upper 95%	1.134	1.137	1.159	1.187	1.130	1.143	1.108
1100	Lower 95%	0.780	0.678	0.593	0.530	0.486	0.433	0.378
	Median	0.949	0.892	0.840	0.793	0.739	0.696	0.649
	Upper 95%	1.149	1.170	1.191	1.181	1.187	1.142	1.115
1150	Lower 95%	0.792	0.685	0.593	0.521	0.474	0.426	0.395
	Median	0.944	0.889	0.827	0.779	0.727	0.680	0.642
	Upper 95%	1.140	1.158	1.158	1.164	1.137	1.109	1.051
1200	Lower 95%	0.779	0.660	0.572	0.521	0.448	0.414	0.360

	Counterfactual of population size at 5 year intervals							
Additional adult mortality	Estimate	yr.5	yr.10	yr.15	yr.20	yr.25	yr.30	yr.35
	Median	0.945	0.877	0.823	0.765	0.715	0.667	0.630
	Upper 95%	1.140	1.140	1.148	1.141	1.084	1.052	1.049
	Lower 95%	0.784	0.668	0.582	0.513	0.460	0.407	0.369
1250	Median	0.948	0.879	0.830	0.768	0.714	0.661	0.626
	Upper 95%	1.139	1.155	1.172	1.132	1.119	1.081	1.056
	Lower 95%	0.786	0.664	0.568	0.498	0.438	0.396	0.343
1300	Median	0.941	0.872	0.810	0.746	0.688	0.638	0.598
	Upper 95%	1.119	1.142	1.133	1.134	1.087	1.056	1.021
	Lower 95%	0.788	0.660	0.585	0.507	0.443	0.400	0.357
1350	Median	0.942	0.873	0.806	0.747	0.695	0.641	0.594
	Upper 95%	1.119	1.124	1.109	1.104	1.064	1.025	0.940
	Lower 95%	0.782	0.662	0.562	0.491	0.438	0.392	0.350
1400	Median	0.932	0.864	0.801	0.735	0.679	0.632	0.585
	Upper 95%	1.128	1.145	1.117	1.089	1.081	1.044	1.003
	Lower 95%	0.780	0.651	0.540	0.476	0.425	0.379	0.339
1450	Median	0.931	0.854	0.791	0.727	0.671	0.614	0.565
	Upper 95%	1.124	1.126	1.104	1.065	1.029	0.992	0.952
	Lower 95%	0.771	0.636	0.549	0.483	0.423	0.380	0.330
1500	Median	0.935	0.860	0.788	0.719	0.661	0.611	0.561
	Upper 95%	1.113	1.093	1.110	1.053	1.015	0.984	0.922
	Lower 95%	0.774	0.648	0.553	0.498	0.435	0.388	0.333
1550	Median	0.926	0.852	0.779	0.715	0.655	0.596	0.551
	Upper 95%	1.106	1.108	1.076	1.044	1.006	0.973	0.923
	Lower 95%	0.774	0.647	0.544	0.472	0.416	0.368	0.321
1600	Median	0.926	0.845	0.773	0.706	0.646	0.595	0.544
	Upper 95%							

	Counterfactual of population size at 5 year intervals							
Additional adult mortality	Estimate	yr.5	yr.10	yr.15	yr.20	yr.25	yr.30	yr.35
	Upper 95%	1.098	1.097	1.077	1.041	0.998	0.982	0.934

Table A2_5.3. Kittiwake, demographic rate set 1, counterfactuals of population growth rate calculated between year 5 and year 35, using a matched runs method, from 1000 density independent simulations.

Additional adult mortality	Lower 95%	Median	Upper 95%
0	1.000	1.000	1.000
50	0.999	0.999	0.999
100	0.999	0.999	0.999
150	0.998	0.998	0.998
200	0.998	0.998	0.998
250	0.997	0.997	0.997
300	0.997	0.997	0.997
350	0.996	0.996	0.996
400	0.995	0.996	0.996
450	0.995	0.995	0.995
500	0.994	0.994	0.994
550	0.994	0.994	0.994
600	0.993	0.993	0.993
650	0.993	0.993	0.993
700	0.992	0.992	0.992
750	0.991	0.992	0.992
800	0.991	0.991	0.991
850	0.990	0.990	0.991
900	0.990	0.990	0.990
950	0.989	0.989	0.989
1000	0.989	0.989	0.989
1050	0.988	0.988	0.988
1100	0.987	0.988	0.988
1150	0.987	0.987	0.987

Additional adult mortality	Lower 95%	Median	Upper 95%
1200	0.986	0.987	0.987
1250	0.986	0.986	0.986
1300	0.985	0.985	0.986
1350	0.985	0.985	0.985
1400	0.984	0.984	0.985
1450	0.983	0.984	0.984
1500	0.983	0.983	0.983
1550	0.982	0.983	0.983
1600	0.982	0.982	0.982

Table A2_5.4. Kittiwake, demographic rate set 1, counterfactuals of population growth rate calculated between year 5 and year 35, using a non-matched runs method, from 1000 density independent simulations.

Additional adult mortality	Lower 95%	Median	Upper 95%
0	1.000	1.000	1.000
50	0.985	1.000	1.017
100	0.983	0.999	1.015
150	0.983	0.998	1.015
200	0.982	0.997	1.012
250	0.981	0.997	1.012
300	0.981	0.997	1.014
350	0.980	0.996	1.013
400	0.980	0.996	1.012
450	0.979	0.995	1.011
500	0.979	0.994	1.010
550	0.977	0.994	1.010
600	0.977	0.994	1.009
650	0.976	0.993	1.009
700	0.977	0.993	1.007
750	0.976	0.991	1.008
800	0.975	0.991	1.006
850	0.974	0.990	1.008
900	0.974	0.990	1.006
950	0.973	0.989	1.005
1000	0.973	0.989	1.006
1050	0.972	0.989	1.005
1100	0.971	0.988	1.004
1150	0.972	0.987	1.003

Additional adult mortality	Lower 95%	Median	Upper 95%
1200	0.970	0.987	1.002
1250	0.971	0.986	1.003
1300	0.969	0.985	1.001
1350	0.970	0.985	0.999
1400	0.969	0.984	1.000
1450	0.968	0.984	1.000
1500	0.967	0.983	0.998
1550	0.967	0.983	0.999
1600	0.967	0.982	0.999

Table A2_6.1. Kittiwake, demographic rate set 1, counterfactuals of population size after 5 to 35 years, estimated using a matched runs method, from 1000 density dependent simulations.

Additional adult mortality	Counterfactual of population size at 5 year intervals							
	Estimate	yr.5	yr.10	yr.15	yr.20	yr.25	yr.30	yr.35
0	Lower 95%	1.000	1.000	1.000	1.000	1.000	1.000	1.000
	Median	1.000	1.000	1.000	1.000	1.000	1.000	1.000
	Upper 95%	1.000	1.000	1.000	1.000	1.000	1.000	1.000
50	Lower 95%	0.998	0.997	0.996	0.995	0.995	0.995	0.995
	Median	0.998	0.997	0.996	0.996	0.996	0.995	0.995
	Upper 95%	0.998	0.997	0.996	0.996	0.996	0.996	0.996
100	Lower 95%	0.996	0.993	0.992	0.991	0.990	0.990	0.990
	Median	0.996	0.994	0.992	0.992	0.991	0.991	0.991
	Upper 95%	0.997	0.994	0.993	0.992	0.992	0.991	0.991
150	Lower 95%	0.994	0.990	0.987	0.986	0.985	0.985	0.985
	Median	0.995	0.991	0.989	0.987	0.987	0.986	0.986
	Upper 95%	0.995	0.991	0.989	0.988	0.988	0.987	0.987
200	Lower 95%	0.992	0.987	0.983	0.982	0.980	0.980	0.979
	Median	0.993	0.988	0.985	0.983	0.982	0.982	0.981
	Upper 95%	0.993	0.989	0.986	0.984	0.983	0.983	0.983
250	Lower 95%	0.990	0.983	0.979	0.977	0.976	0.975	0.974
	Median	0.991	0.985	0.981	0.979	0.978	0.977	0.977
	Upper 95%	0.992	0.986	0.982	0.980	0.979	0.979	0.978
300	Lower 95%	0.988	0.980	0.975	0.972	0.971	0.970	0.969
	Median	0.989	0.982	0.977	0.975	0.973	0.972	0.972
	Upper 95%	0.990	0.983	0.979	0.977	0.975	0.975	0.974
350	Lower 95%	0.987	0.977	0.971	0.968	0.966	0.965	0.964
	Median	0.988	0.978	0.973	0.970	0.969	0.968	0.967

	Counterfactual of population size at 5 year intervals							
Additional adult mortality	Estimate	yr.5	yr.10	yr.15	yr.20	yr.25	yr.30	yr.35
	Upper 95%	0.988	0.980	0.975	0.973	0.971	0.970	0.970
400	Lower 95%	0.985	0.974	0.967	0.963	0.961	0.959	0.959
	Median	0.986	0.975	0.969	0.966	0.964	0.963	0.962
	Upper 95%	0.987	0.977	0.972	0.968	0.967	0.966	0.965
450	Lower 95%	0.983	0.970	0.963	0.959	0.956	0.955	0.954
	Median	0.984	0.972	0.966	0.962	0.960	0.958	0.958
	Upper 95%	0.985	0.974	0.968	0.965	0.963	0.962	0.961
500	Lower 95%	0.981	0.967	0.958	0.954	0.951	0.949	0.949
	Median	0.982	0.969	0.962	0.958	0.955	0.954	0.953
	Upper 95%	0.983	0.971	0.965	0.961	0.958	0.957	0.957
550	Lower 95%	0.979	0.963	0.954	0.949	0.946	0.944	0.944
	Median	0.981	0.966	0.958	0.953	0.951	0.949	0.948
	Upper 95%	0.982	0.968	0.961	0.957	0.954	0.953	0.952
600	Lower 95%	0.977	0.960	0.950	0.944	0.941	0.939	0.938
	Median	0.979	0.963	0.954	0.949	0.946	0.944	0.943
	Upper 95%	0.980	0.966	0.957	0.953	0.950	0.949	0.948
650	Lower 95%	0.975	0.957	0.946	0.940	0.936	0.934	0.933
	Median	0.977	0.960	0.950	0.945	0.942	0.939	0.938
	Upper 95%	0.978	0.963	0.954	0.949	0.946	0.944	0.943
700	Lower 95%	0.973	0.954	0.942	0.935	0.931	0.929	0.927
	Median	0.975	0.957	0.947	0.940	0.937	0.935	0.934
	Upper 95%	0.977	0.960	0.951	0.945	0.941	0.940	0.939
750	Lower 95%	0.971	0.950	0.938	0.931	0.926	0.923	0.922
	Median	0.973	0.954	0.943	0.936	0.932	0.930	0.929
	Upper 95%	0.975	0.957	0.947	0.941	0.938	0.936	0.934

	Counterfactual of population size at 5 year intervals							
Additional adult mortality	Estimate	yr.5	yr.10	yr.15	yr.20	yr.25	yr.30	yr.35
800	Lower 95%	0.969	0.947	0.933	0.925	0.922	0.918	0.917
	Median	0.972	0.951	0.939	0.932	0.928	0.925	0.924
	Upper 95%	0.974	0.954	0.944	0.937	0.933	0.931	0.930
850	Lower 95%	0.968	0.943	0.929	0.922	0.917	0.914	0.912
	Median	0.970	0.948	0.935	0.928	0.923	0.921	0.919
	Upper 95%	0.972	0.951	0.940	0.933	0.930	0.927	0.926
900	Lower 95%	0.966	0.940	0.926	0.917	0.911	0.908	0.907
	Median	0.968	0.945	0.931	0.923	0.919	0.916	0.914
	Upper 95%	0.970	0.948	0.936	0.929	0.925	0.922	0.921
950	Lower 95%	0.964	0.937	0.921	0.912	0.907	0.904	0.900
	Median	0.967	0.942	0.927	0.919	0.914	0.912	0.910
	Upper 95%	0.968	0.945	0.933	0.925	0.921	0.918	0.917
1000	Lower 95%	0.962	0.934	0.918	0.908	0.902	0.899	0.896
	Median	0.965	0.939	0.924	0.915	0.910	0.906	0.905
	Upper 95%	0.967	0.943	0.929	0.921	0.916	0.914	0.913
1050	Lower 95%	0.960	0.931	0.913	0.903	0.896	0.893	0.890
	Median	0.963	0.936	0.920	0.911	0.905	0.902	0.900
	Upper 95%	0.965	0.940	0.926	0.917	0.913	0.910	0.908
1100	Lower 95%	0.958	0.927	0.909	0.899	0.892	0.888	0.886
	Median	0.961	0.933	0.916	0.907	0.901	0.897	0.895
	Upper 95%	0.964	0.937	0.922	0.913	0.908	0.905	0.904
1150	Lower 95%	0.956	0.924	0.905	0.894	0.887	0.884	0.881
	Median	0.959	0.930	0.913	0.902	0.896	0.893	0.890
	Upper 95%	0.962	0.934	0.919	0.910	0.904	0.901	0.899
1200	Lower 95%	0.954	0.921	0.901	0.889	0.882	0.878	0.875

	Counterfactual of population size at 5 year intervals							
Additional adult mortality	Estimate	yr.5	yr.10	yr.15	yr.20	yr.25	yr.30	yr.35
	Median	0.958	0.927	0.909	0.898	0.891	0.888	0.885
	Upper 95%	0.960	0.931	0.915	0.905	0.899	0.896	0.894
	Lower 95%	0.952	0.917	0.897	0.885	0.877	0.873	0.871
1250	Median	0.956	0.923	0.905	0.894	0.887	0.883	0.881
	Upper 95%	0.959	0.928	0.912	0.902	0.896	0.892	0.890
	Lower 95%	0.951	0.915	0.892	0.880	0.872	0.867	0.865
1300	Median	0.954	0.921	0.901	0.890	0.883	0.878	0.875
	Upper 95%	0.957	0.926	0.908	0.897	0.891	0.888	0.885
	Lower 95%	0.949	0.911	0.888	0.875	0.867	0.862	0.859
1350	Median	0.953	0.918	0.897	0.885	0.878	0.873	0.871
	Upper 95%	0.955	0.923	0.904	0.894	0.887	0.883	0.882
	Lower 95%	0.946	0.908	0.885	0.871	0.862	0.857	0.855
1400	Median	0.951	0.915	0.893	0.881	0.873	0.869	0.866
	Upper 95%	0.954	0.920	0.901	0.889	0.882	0.879	0.876
	Lower 95%	0.945	0.905	0.882	0.867	0.858	0.852	0.849
1450	Median	0.949	0.911	0.890	0.876	0.869	0.864	0.861
	Upper 95%	0.952	0.918	0.897	0.886	0.879	0.874	0.872
	Lower 95%	0.943	0.901	0.876	0.861	0.852	0.846	0.843
1500	Median	0.947	0.909	0.886	0.872	0.864	0.859	0.856
	Upper 95%	0.951	0.914	0.894	0.882	0.874	0.870	0.867
	Lower 95%	0.941	0.899	0.873	0.856	0.847	0.841	0.838
1550	Median	0.945	0.906	0.882	0.868	0.859	0.854	0.851
	Upper 95%	0.949	0.911	0.890	0.878	0.870	0.865	0.862
	Lower 95%	0.939	0.895	0.869	0.852	0.842	0.837	0.833
1600	Median	0.944	0.902	0.878	0.864	0.855	0.850	0.846
	Upper 95%							

Counterfactual of population size at 5 year intervals								
Additional adult mortality	Estimate	yr.5	yr.10	yr.15	yr.20	yr.25	yr.30	yr.35
	Upper 95%	0.947	0.909	0.886	0.873	0.865	0.861	0.858

Table A2_6.2. Kittiwake, demographic rate set 1, counterfactuals of population size after 5 to 35 years, estimated using a non-matched runs method, from 1000 density dependent simulations.

Additional adult mortality	Counterfactual of population size at 5 year intervals							
	Estimate	yr.5	yr.10	yr.15	yr.20	yr.25	yr.30	yr.35
0	Lower 95%	1.000	1.000	1.000	1.000	1.000	1.000	1.000
	Median	1.000	1.000	1.000	1.000	1.000	1.000	1.000
	Upper 95%	1.000	1.000	1.000	1.000	1.000	1.000	1.000
50	Lower 95%	0.846	0.823	0.804	0.813	0.805	0.816	0.814
	Median	1.001	0.994	0.990	0.992	0.992	1.005	1.003
	Upper 95%	1.179	1.202	1.211	1.214	1.204	1.208	1.207
100	Lower 95%	0.853	0.829	0.809	0.824	0.814	0.819	0.820
	Median	0.997	0.992	0.993	0.990	0.991	0.997	0.996
	Upper 95%	1.167	1.197	1.207	1.208	1.226	1.218	1.201
150	Lower 95%	0.848	0.825	0.789	0.811	0.803	0.811	0.813
	Median	0.999	0.993	0.988	0.989	0.987	0.990	0.985
	Upper 95%	1.167	1.194	1.197	1.210	1.194	1.204	1.200
200	Lower 95%	0.860	0.823	0.802	0.802	0.790	0.805	0.799
	Median	0.999	0.987	0.982	0.988	0.988	0.989	0.983
	Upper 95%	1.169	1.200	1.194	1.192	1.192	1.200	1.204
250	Lower 95%	0.861	0.829	0.810	0.812	0.802	0.808	0.810
	Median	0.992	0.986	0.982	0.981	0.975	0.982	0.978
	Upper 95%	1.166	1.184	1.196	1.214	1.185	1.190	1.205
300	Lower 95%	0.848	0.810	0.800	0.808	0.801	0.804	0.790
	Median	0.987	0.978	0.981	0.978	0.978	0.978	0.974
	Upper 95%	1.168	1.169	1.192	1.205	1.191	1.174	1.191
350	Lower 95%	0.846	0.820	0.794	0.793	0.798	0.805	0.808
	Median	0.984	0.978	0.976	0.972	0.970	0.976	0.973

	Counterfactual of population size at 5 year intervals							
Additional adult mortality	Estimate	yr.5	yr.10	yr.15	yr.20	yr.25	yr.30	yr.35
	Upper 95%	1.169	1.181	1.173	1.182	1.182	1.182	1.200
400	Lower 95%	0.848	0.809	0.785	0.797	0.785	0.799	0.785
	Median	0.986	0.975	0.971	0.964	0.967	0.966	0.967
	Upper 95%	1.175	1.181	1.168	1.178	1.178	1.170	1.171
450	Lower 95%	0.838	0.809	0.795	0.790	0.806	0.801	0.785
	Median	0.986	0.974	0.968	0.969	0.963	0.965	0.958
	Upper 95%	1.149	1.156	1.169	1.174	1.159	1.164	1.165
500	Lower 95%	0.842	0.804	0.791	0.795	0.783	0.800	0.783
	Median	0.986	0.967	0.963	0.963	0.959	0.959	0.953
	Upper 95%	1.146	1.162	1.166	1.181	1.162	1.168	1.176
550	Lower 95%	0.841	0.812	0.783	0.795	0.782	0.787	0.784
	Median	0.981	0.964	0.955	0.955	0.954	0.954	0.952
	Upper 95%	1.155	1.151	1.159	1.165	1.155	1.158	1.167
600	Lower 95%	0.832	0.808	0.788	0.782	0.779	0.777	0.775
	Median	0.980	0.957	0.953	0.948	0.951	0.951	0.944
	Upper 95%	1.152	1.147	1.143	1.150	1.154	1.160	1.150
650	Lower 95%	0.840	0.802	0.771	0.777	0.772	0.778	0.780
	Median	0.977	0.953	0.948	0.946	0.944	0.945	0.939
	Upper 95%	1.158	1.172	1.145	1.149	1.149	1.145	1.138
700	Lower 95%	0.838	0.803	0.773	0.780	0.777	0.786	0.771
	Median	0.974	0.953	0.941	0.949	0.944	0.943	0.938
	Upper 95%	1.141	1.153	1.124	1.154	1.147	1.135	1.128
750	Lower 95%	0.840	0.800	0.776	0.772	0.772	0.771	0.762
	Median	0.977	0.949	0.943	0.943	0.940	0.936	0.932
	Upper 95%	1.147	1.143	1.145	1.134	1.132	1.124	1.138

	Counterfactual of population size at 5 year intervals							
Additional adult mortality	Estimate	yr.5	yr.10	yr.15	yr.20	yr.25	yr.30	yr.35
800	Lower 95%	0.833	0.792	0.771	0.770	0.772	0.779	0.770
	Median	0.973	0.954	0.942	0.935	0.929	0.929	0.927
	Upper 95%	1.143	1.151	1.139	1.137	1.127	1.144	1.140
850	Lower 95%	0.828	0.789	0.759	0.764	0.760	0.764	0.759
	Median	0.971	0.945	0.936	0.928	0.926	0.925	0.923
	Upper 95%	1.142	1.142	1.148	1.141	1.118	1.126	1.131
900	Lower 95%	0.825	0.784	0.768	0.764	0.752	0.757	0.747
	Median	0.970	0.942	0.930	0.925	0.921	0.920	0.919
	Upper 95%	1.138	1.131	1.123	1.108	1.121	1.112	1.116
950	Lower 95%	0.825	0.782	0.757	0.764	0.754	0.753	0.750
	Median	0.966	0.941	0.928	0.923	0.918	0.911	0.916
	Upper 95%	1.120	1.135	1.131	1.121	1.104	1.122	1.128
1000	Lower 95%	0.824	0.777	0.755	0.748	0.752	0.742	0.754
	Median	0.963	0.940	0.921	0.915	0.910	0.912	0.905
	Upper 95%	1.127	1.127	1.112	1.102	1.092	1.101	1.115
1050	Lower 95%	0.816	0.786	0.749	0.743	0.747	0.749	0.752
	Median	0.966	0.931	0.921	0.917	0.908	0.902	0.898
	Upper 95%	1.125	1.126	1.115	1.104	1.102	1.111	1.110
1100	Lower 95%	0.818	0.764	0.755	0.750	0.740	0.733	0.739
	Median	0.963	0.930	0.915	0.909	0.902	0.905	0.897
	Upper 95%	1.111	1.112	1.123	1.103	1.100	1.087	1.093
1150	Lower 95%	0.822	0.778	0.750	0.747	0.733	0.731	0.742
	Median	0.954	0.928	0.910	0.902	0.899	0.893	0.886
	Upper 95%	1.127	1.120	1.108	1.087	1.080	1.095	1.077
1200	Lower 95%	0.820	0.775	0.735	0.731	0.737	0.729	0.722

	Counterfactual of population size at 5 year intervals							
Additional adult mortality	Estimate	yr.5	yr.10	yr.15	yr.20	yr.25	yr.30	yr.35
	Median	0.964	0.925	0.909	0.903	0.893	0.888	0.885
	Upper 95%	1.128	1.115	1.117	1.095	1.082	1.084	1.074
	Lower 95%	0.810	0.772	0.746	0.732	0.719	0.733	0.729
1250	Median	0.959	0.931	0.904	0.893	0.890	0.890	0.879
	Upper 95%	1.107	1.107	1.089	1.095	1.091	1.067	1.072
	Lower 95%	0.814	0.767	0.741	0.729	0.724	0.731	0.720
1300	Median	0.955	0.920	0.901	0.891	0.881	0.881	0.875
	Upper 95%	1.129	1.116	1.095	1.085	1.075	1.063	1.063
	Lower 95%	0.817	0.758	0.731	0.729	0.732	0.728	0.731
1350	Median	0.948	0.913	0.895	0.884	0.878	0.880	0.870
	Upper 95%	1.124	1.098	1.089	1.082	1.057	1.071	1.058
	Lower 95%	0.811	0.762	0.726	0.723	0.713	0.713	0.704
1400	Median	0.952	0.913	0.893	0.887	0.871	0.869	0.864
	Upper 95%	1.120	1.097	1.083	1.058	1.070	1.067	1.052
	Lower 95%	0.804	0.750	0.730	0.727	0.717	0.716	0.715
1450	Median	0.952	0.916	0.886	0.875	0.867	0.864	0.862
	Upper 95%	1.109	1.097	1.077	1.069	1.060	1.060	1.047
	Lower 95%	0.813	0.762	0.728	0.715	0.711	0.718	0.704
1500	Median	0.952	0.912	0.888	0.877	0.866	0.865	0.861
	Upper 95%	1.124	1.085	1.071	1.043	1.047	1.051	1.054
	Lower 95%	0.813	0.743	0.723	0.707	0.708	0.703	0.710
1550	Median	0.945	0.905	0.883	0.867	0.861	0.861	0.854
	Upper 95%	1.108	1.077	1.067	1.053	1.044	1.040	1.042
	Lower 95%	0.808	0.757	0.716	0.714	0.704	0.697	0.693
1600	Median	0.945	0.900	0.878	0.863	0.859	0.850	0.847
	Upper 95%							

	Counterfactual of population size at 5 year intervals							
Additional adult mortality	Estimate	yr.5	yr.10	yr.15	yr.20	yr.25	yr.30	yr.35
	Upper 95%	1.102	1.074	1.061	1.053	1.047	1.038	1.032

Table A2_6.3. Kittiwake, demographic rate set 1, counterfactuals of population growth rate calculated between year 5 and year 35, using a matched runs method, from 1000 density dependent simulations.

Additional adult mortality	Lower 95%	Median	Upper 95%
0	1.000	1.000	1.000
50	1.000	1.000	1.000
100	1.000	1.000	1.000
150	1.000	1.000	1.000
200	1.000	1.000	1.000
250	0.999	1.000	1.000
300	0.999	0.999	0.999
350	0.999	0.999	0.999
400	0.999	0.999	0.999
450	0.999	0.999	0.999
500	0.999	0.999	0.999
550	0.999	0.999	0.999
600	0.999	0.999	0.999
650	0.998	0.999	0.999
700	0.998	0.999	0.999
750	0.998	0.998	0.999
800	0.998	0.998	0.999
850	0.998	0.998	0.998
900	0.998	0.998	0.998
950	0.998	0.998	0.998
1000	0.998	0.998	0.998
1050	0.997	0.998	0.998
1100	0.997	0.998	0.998
1150	0.997	0.998	0.998

Additional adult mortality	Lower 95%	Median	Upper 95%
1200	0.997	0.997	0.998
1250	0.997	0.997	0.998
1300	0.997	0.997	0.998
1350	0.997	0.997	0.997
1400	0.996	0.997	0.997
1450	0.996	0.997	0.997
1500	0.996	0.997	0.997
1550	0.996	0.996	0.997
1600	0.996	0.996	0.997

Table A2_6.4. Kittiwake, demographic rate set 1, counterfactuals of population growth rate calculated between year 5 and year 35, using a non-matched runs method, from 1000 density dependent simulations.

Additional adult mortality	Lower 95%	Median	Upper 95%
0	1.000	1.000	1.000
50	0.992	1.000	1.008
100	0.992	1.000	1.008
150	0.992	1.000	1.008
200	0.991	0.999	1.008
250	0.992	1.000	1.008
300	0.991	0.999	1.008
350	0.991	1.000	1.008
400	0.991	0.999	1.008
450	0.991	0.999	1.007
500	0.991	0.999	1.007
550	0.990	0.999	1.008
600	0.991	0.999	1.008
650	0.990	0.999	1.007
700	0.991	0.999	1.007
750	0.990	0.998	1.007
800	0.990	0.999	1.007
850	0.990	0.998	1.006
900	0.990	0.998	1.007
950	0.989	0.998	1.007
1000	0.990	0.998	1.007
1050	0.990	0.998	1.006
1100	0.990	0.998	1.006
1150	0.990	0.997	1.006

Additional adult mortality	Lower 95%	Median	Upper 95%
1200	0.989	0.997	1.005
1250	0.990	0.997	1.005
1300	0.989	0.997	1.006
1350	0.989	0.997	1.006
1400	0.988	0.997	1.005
1450	0.988	0.997	1.005
1500	0.988	0.997	1.005
1550	0.988	0.997	1.005
1600	0.988	0.996	1.005

Table A2_7.1. Kittiwake, demographic rate set 2, counterfactuals of population size after 5 to 35 years, estimated using a matched runs method, from 1000 density independent simulations.

Additional adult mortality	Counterfactual of population size at 5 year intervals							
	Estimate	yr.5	yr.10	yr.15	yr.20	yr.25	yr.30	yr.35
0	Lower 95%	1.000	1.000	1.000	1.000	1.000	1.000	1.000
	Median	1.000	1.000	1.000	1.000	1.000	1.000	1.000
	Upper 95%	1.000	1.000	1.000	1.000	1.000	1.000	1.000
50	Lower 95%	0.998	0.995	0.992	0.989	0.986	0.984	0.981
	Median	0.998	0.995	0.992	0.989	0.987	0.984	0.981
	Upper 95%	0.998	0.995	0.992	0.990	0.987	0.984	0.981
100	Lower 95%	0.995	0.990	0.984	0.979	0.973	0.968	0.962
	Median	0.996	0.990	0.984	0.979	0.973	0.968	0.962
	Upper 95%	0.996	0.990	0.985	0.979	0.974	0.968	0.963
150	Lower 95%	0.993	0.985	0.976	0.968	0.960	0.952	0.944
	Median	0.993	0.985	0.977	0.968	0.960	0.952	0.944
	Upper 95%	0.993	0.985	0.977	0.969	0.961	0.953	0.945
200	Lower 95%	0.991	0.980	0.969	0.958	0.947	0.936	0.926
	Median	0.991	0.980	0.969	0.958	0.947	0.937	0.926
	Upper 95%	0.991	0.980	0.969	0.959	0.948	0.937	0.927
250	Lower 95%	0.989	0.975	0.961	0.947	0.934	0.921	0.908
	Median	0.989	0.975	0.961	0.948	0.935	0.922	0.909
	Upper 95%	0.989	0.975	0.962	0.949	0.935	0.922	0.909
300	Lower 95%	0.986	0.970	0.953	0.937	0.921	0.906	0.891
	Median	0.987	0.970	0.954	0.938	0.922	0.907	0.892
	Upper 95%	0.987	0.971	0.954	0.939	0.923	0.908	0.892
350	Lower 95%	0.984	0.965	0.946	0.927	0.909	0.891	0.874
	Median	0.984	0.965	0.946	0.928	0.910	0.892	0.875

	Counterfactual of population size at 5 year intervals							
Additional adult mortality	Estimate	yr.5	yr.10	yr.15	yr.20	yr.25	yr.30	yr.35
	Upper 95%	0.985	0.966	0.947	0.929	0.911	0.893	0.876
400	Lower 95%	0.982	0.960	0.938	0.917	0.897	0.877	0.857
	Median	0.982	0.960	0.939	0.918	0.898	0.878	0.858
	Upper 95%	0.983	0.961	0.940	0.919	0.899	0.879	0.859
450	Lower 95%	0.979	0.955	0.931	0.907	0.884	0.862	0.840
	Median	0.980	0.955	0.931	0.908	0.885	0.863	0.842
	Upper 95%	0.980	0.956	0.932	0.909	0.887	0.865	0.843
500	Lower 95%	0.977	0.950	0.923	0.897	0.872	0.848	0.824
	Median	0.978	0.951	0.924	0.899	0.874	0.849	0.826
	Upper 95%	0.978	0.951	0.925	0.900	0.875	0.851	0.827
550	Lower 95%	0.975	0.945	0.916	0.888	0.860	0.834	0.809
	Median	0.976	0.946	0.917	0.889	0.862	0.835	0.810
	Upper 95%	0.976	0.947	0.918	0.890	0.863	0.837	0.811
600	Lower 95%	0.973	0.940	0.908	0.878	0.849	0.820	0.793
	Median	0.973	0.941	0.910	0.879	0.850	0.822	0.794
	Upper 95%	0.974	0.942	0.911	0.881	0.851	0.823	0.796
650	Lower 95%	0.970	0.935	0.901	0.869	0.837	0.807	0.778
	Median	0.971	0.936	0.902	0.870	0.839	0.808	0.779
	Upper 95%	0.972	0.937	0.904	0.871	0.840	0.810	0.781
700	Lower 95%	0.968	0.930	0.894	0.859	0.826	0.794	0.763
	Median	0.969	0.931	0.895	0.861	0.827	0.795	0.765
	Upper 95%	0.970	0.932	0.897	0.862	0.829	0.797	0.766
750	Lower 95%	0.966	0.926	0.887	0.850	0.815	0.781	0.748
	Median	0.967	0.927	0.888	0.851	0.816	0.782	0.750
	Upper 95%	0.968	0.928	0.890	0.853	0.818	0.784	0.752

	Counterfactual of population size at 5 year intervals							
Additional adult mortality	Estimate	yr.5	yr.10	yr.15	yr.20	yr.25	yr.30	yr.35
800	Lower 95%	0.964	0.921	0.880	0.841	0.803	0.768	0.734
	Median	0.965	0.922	0.881	0.842	0.805	0.770	0.736
	Upper 95%	0.965	0.923	0.883	0.844	0.807	0.771	0.737
850	Lower 95%	0.961	0.916	0.873	0.832	0.792	0.755	0.720
	Median	0.962	0.917	0.874	0.833	0.794	0.757	0.722
	Upper 95%	0.963	0.919	0.876	0.835	0.796	0.759	0.724
900	Lower 95%	0.959	0.911	0.866	0.823	0.782	0.743	0.706
	Median	0.960	0.913	0.867	0.824	0.783	0.745	0.708
	Upper 95%	0.961	0.914	0.869	0.826	0.785	0.747	0.710
950	Lower 95%	0.957	0.906	0.859	0.814	0.771	0.730	0.692
	Median	0.958	0.908	0.860	0.815	0.773	0.732	0.694
	Upper 95%	0.959	0.909	0.862	0.818	0.775	0.735	0.696
1000	Lower 95%	0.955	0.902	0.852	0.805	0.760	0.718	0.679
	Median	0.956	0.903	0.854	0.807	0.762	0.721	0.681
	Upper 95%	0.957	0.905	0.856	0.809	0.765	0.723	0.683
1050	Lower 95%	0.952	0.897	0.845	0.796	0.750	0.707	0.666
	Median	0.954	0.899	0.847	0.798	0.752	0.709	0.668
	Upper 95%	0.955	0.900	0.849	0.800	0.754	0.711	0.670
1100	Lower 95%	0.950	0.893	0.838	0.788	0.740	0.695	0.653
	Median	0.951	0.894	0.840	0.790	0.742	0.697	0.655
	Upper 95%	0.953	0.896	0.842	0.792	0.744	0.700	0.657
1150	Lower 95%	0.948	0.888	0.832	0.779	0.730	0.683	0.640
	Median	0.949	0.890	0.834	0.781	0.732	0.686	0.643
	Upper 95%	0.951	0.891	0.836	0.783	0.734	0.688	0.645
1200	Lower 95%	0.946	0.883	0.825	0.771	0.720	0.672	0.628

	Counterfactual of population size at 5 year intervals							
Additional adult mortality	Estimate	yr.5	yr.10	yr.15	yr.20	yr.25	yr.30	yr.35
	Median	0.947	0.885	0.827	0.773	0.722	0.675	0.630
	Upper 95%	0.949	0.887	0.829	0.775	0.724	0.677	0.633
	Lower 95%	0.944	0.879	0.818	0.762	0.710	0.661	0.616
1250	Median	0.945	0.880	0.820	0.764	0.712	0.663	0.618
	Upper 95%	0.946	0.882	0.823	0.767	0.715	0.666	0.621
	Lower 95%	0.941	0.874	0.812	0.754	0.700	0.650	0.604
1300	Median	0.943	0.876	0.814	0.756	0.702	0.653	0.606
	Upper 95%	0.944	0.878	0.816	0.759	0.705	0.655	0.609
	Lower 95%	0.939	0.869	0.805	0.745	0.690	0.639	0.592
1350	Median	0.941	0.871	0.807	0.748	0.693	0.642	0.595
	Upper 95%	0.942	0.873	0.810	0.750	0.696	0.644	0.597
	Lower 95%	0.937	0.865	0.799	0.737	0.681	0.629	0.581
1400	Median	0.939	0.867	0.801	0.740	0.683	0.631	0.583
	Upper 95%	0.940	0.869	0.803	0.742	0.686	0.634	0.586
	Lower 95%	0.935	0.860	0.792	0.729	0.671	0.618	0.569
1450	Median	0.936	0.862	0.794	0.732	0.674	0.621	0.572
	Upper 95%	0.938	0.865	0.797	0.734	0.677	0.624	0.575
	Lower 95%	0.933	0.856	0.786	0.721	0.662	0.608	0.558
1500	Median	0.934	0.858	0.788	0.724	0.665	0.611	0.561
	Upper 95%	0.936	0.860	0.791	0.727	0.668	0.613	0.564
	Lower 95%	0.931	0.852	0.780	0.714	0.653	0.598	0.548
1550	Median	0.932	0.854	0.782	0.716	0.656	0.601	0.550
	Upper 95%	0.934	0.856	0.785	0.719	0.659	0.604	0.553
	Lower 95%	0.928	0.847	0.773	0.705	0.644	0.588	0.537
1600	Median	0.930	0.849	0.776	0.708	0.647	0.591	0.540
	Upper 95%							

Counterfactual of population size at 5 year intervals								
Additional adult mortality	Estimate	yr.5	yr.10	yr.15	yr.20	yr.25	yr.30	yr.35
	Upper 95%	0.932	0.852	0.778	0.711	0.650	0.594	0.542

Table A2_7.2. Kittiwake, demographic rate set 2, counterfactuals of population size after 5 to 35 years, estimated using a non-matched runs method, from 1000 density independent simulations.

Additional adult mortality	Counterfactual of population size at 5 year intervals							
	Estimate	yr.5	yr.10	yr.15	yr.20	yr.25	yr.30	yr.35
0	Lower 95%	1.000	1.000	1.000	1.000	1.000	1.000	1.000
	Median	1.000	1.000	1.000	1.000	1.000	1.000	1.000
	Upper 95%	1.000	1.000	1.000	1.000	1.000	1.000	1.000
50	Lower 95%	0.782	0.698	0.658	0.592	0.562	0.531	0.518
	Median	0.998	0.969	0.979	0.974	0.965	0.959	0.952
	Upper 95%	1.268	1.389	1.492	1.569	1.694	1.805	1.839
100	Lower 95%	0.799	0.712	0.623	0.590	0.543	0.511	0.476
	Median	0.991	0.979	0.968	0.966	0.953	0.950	0.942
	Upper 95%	1.262	1.383	1.474	1.633	1.667	1.764	1.815
150	Lower 95%	0.779	0.702	0.616	0.576	0.543	0.498	0.472
	Median	0.996	0.975	0.974	0.961	0.944	0.930	0.924
	Upper 95%	1.253	1.381	1.467	1.541	1.672	1.684	1.789
200	Lower 95%	0.771	0.687	0.612	0.574	0.539	0.492	0.457
	Median	0.995	0.976	0.957	0.962	0.936	0.917	0.914
	Upper 95%	1.249	1.405	1.441	1.547	1.604	1.700	1.794
250	Lower 95%	0.779	0.684	0.613	0.568	0.513	0.462	0.466
	Median	0.987	0.979	0.973	0.954	0.939	0.917	0.904
	Upper 95%	1.254	1.367	1.444	1.505	1.598	1.753	1.752
300	Lower 95%	0.767	0.682	0.596	0.556	0.522	0.481	0.441
	Median	0.981	0.960	0.940	0.927	0.904	0.881	0.871
	Upper 95%	1.217	1.371	1.484	1.565	1.634	1.697	1.696
350	Lower 95%	0.782	0.679	0.606	0.578	0.528	0.490	0.459
	Median	0.981	0.973	0.938	0.927	0.905	0.869	0.868

	Counterfactual of population size at 5 year intervals							
Additional adult mortality	Estimate	yr.5	yr.10	yr.15	yr.20	yr.25	yr.30	yr.35
	Upper 95%	1.222	1.340	1.436	1.484	1.496	1.594	1.636
400	Lower 95%	0.778	0.684	0.607	0.565	0.508	0.485	0.441
	Median	0.982	0.945	0.938	0.920	0.888	0.856	0.831
	Upper 95%	1.246	1.328	1.418	1.463	1.533	1.596	1.631
450	Lower 95%	0.777	0.697	0.625	0.566	0.519	0.476	0.414
	Median	0.987	0.954	0.937	0.911	0.895	0.858	0.843
	Upper 95%	1.252	1.356	1.414	1.479	1.560	1.606	1.685
500	Lower 95%	0.776	0.658	0.579	0.541	0.497	0.459	0.414
	Median	0.984	0.943	0.923	0.891	0.863	0.835	0.802
	Upper 95%	1.233	1.360	1.427	1.462	1.501	1.561	1.590
550	Lower 95%	0.775	0.673	0.617	0.542	0.491	0.448	0.414
	Median	0.977	0.946	0.914	0.885	0.861	0.822	0.809
	Upper 95%	1.232	1.349	1.378	1.485	1.534	1.538	1.543
600	Lower 95%	0.774	0.662	0.585	0.560	0.514	0.466	0.408
	Median	0.966	0.925	0.894	0.866	0.813	0.799	0.788
	Upper 95%	1.234	1.311	1.353	1.388	1.444	1.461	1.510
650	Lower 95%	0.767	0.658	0.578	0.529	0.471	0.420	0.389
	Median	0.968	0.932	0.890	0.859	0.830	0.799	0.764
	Upper 95%	1.211	1.330	1.327	1.378	1.417	1.446	1.493
700	Lower 95%	0.769	0.650	0.583	0.520	0.451	0.412	0.392
	Median	0.967	0.929	0.883	0.852	0.814	0.785	0.765
	Upper 95%	1.204	1.290	1.364	1.387	1.390	1.416	1.431
750	Lower 95%	0.783	0.660	0.567	0.513	0.449	0.417	0.382
	Median	0.971	0.922	0.899	0.860	0.831	0.777	0.749
	Upper 95%	1.217	1.317	1.360	1.369	1.410	1.428	1.418

	Counterfactual of population size at 5 year intervals							
Additional adult mortality	Estimate	yr.5	yr.10	yr.15	yr.20	yr.25	yr.30	yr.35
800	Lower 95%	0.768	0.661	0.570	0.499	0.443	0.407	0.375
	Median	0.967	0.911	0.869	0.835	0.789	0.748	0.725
	Upper 95%	1.208	1.319	1.336	1.389	1.372	1.370	1.411
850	Lower 95%	0.785	0.655	0.575	0.518	0.459	0.405	0.362
	Median	0.959	0.906	0.868	0.831	0.784	0.744	0.713
	Upper 95%	1.213	1.317	1.314	1.345	1.379	1.382	1.407
900	Lower 95%	0.763	0.640	0.544	0.497	0.458	0.401	0.353
	Median	0.965	0.907	0.866	0.821	0.776	0.735	0.699
	Upper 95%	1.202	1.278	1.309	1.310	1.326	1.391	1.420
950	Lower 95%	0.757	0.632	0.538	0.486	0.427	0.401	0.348
	Median	0.957	0.915	0.862	0.811	0.776	0.728	0.701
	Upper 95%	1.203	1.308	1.338	1.356	1.348	1.327	1.335
1000	Lower 95%	0.755	0.651	0.552	0.488	0.423	0.376	0.337
	Median	0.954	0.891	0.850	0.806	0.763	0.719	0.685
	Upper 95%	1.213	1.292	1.321	1.331	1.381	1.336	1.336
1050	Lower 95%	0.753	0.634	0.542	0.477	0.427	0.383	0.339
	Median	0.962	0.901	0.830	0.788	0.735	0.686	0.648
	Upper 95%	1.183	1.267	1.291	1.316	1.307	1.272	1.275
1100	Lower 95%	0.749	0.619	0.548	0.480	0.411	0.353	0.326
	Median	0.950	0.891	0.826	0.785	0.737	0.682	0.636
	Upper 95%	1.188	1.255	1.284	1.274	1.250	1.253	1.274
1150	Lower 95%	0.753	0.616	0.529	0.473	0.413	0.366	0.323
	Median	0.947	0.888	0.829	0.777	0.727	0.682	0.636
	Upper 95%	1.194	1.269	1.258	1.290	1.268	1.264	1.239
1200	Lower 95%	0.746	0.632	0.538	0.469	0.399	0.357	0.321

	Counterfactual of population size at 5 year intervals							
Additional adult mortality	Estimate	yr.5	yr.10	yr.15	yr.20	yr.25	yr.30	yr.35
	Median	0.950	0.884	0.817	0.760	0.723	0.664	0.629
	Upper 95%	1.201	1.252	1.267	1.275	1.260	1.236	1.262
	Lower 95%	0.737	0.609	0.537	0.452	0.399	0.351	0.302
1250	Median	0.949	0.874	0.815	0.758	0.702	0.650	0.596
	Upper 95%	1.185	1.227	1.241	1.259	1.275	1.218	1.148
	Lower 95%	0.748	0.628	0.529	0.446	0.391	0.334	0.296
1300	Median	0.942	0.880	0.819	0.755	0.696	0.642	0.595
	Upper 95%	1.183	1.240	1.243	1.198	1.175	1.149	1.163
	Lower 95%	0.746	0.618	0.520	0.451	0.394	0.347	0.313
1350	Median	0.937	0.859	0.790	0.744	0.683	0.630	0.582
	Upper 95%	1.187	1.213	1.237	1.244	1.202	1.143	1.160
	Lower 95%	0.742	0.612	0.513	0.452	0.384	0.342	0.298
1400	Median	0.936	0.862	0.793	0.732	0.680	0.612	0.573
	Upper 95%	1.194	1.247	1.212	1.212	1.172	1.181	1.162
	Lower 95%	0.737	0.617	0.518	0.455	0.388	0.334	0.291
1450	Median	0.943	0.857	0.786	0.723	0.668	0.609	0.564
	Upper 95%	1.173	1.212	1.204	1.220	1.195	1.146	1.113
	Lower 95%	0.744	0.598	0.502	0.427	0.382	0.328	0.282
1500	Median	0.940	0.863	0.791	0.730	0.671	0.606	0.566
	Upper 95%	1.168	1.203	1.178	1.173	1.131	1.140	1.099
	Lower 95%	0.736	0.611	0.516	0.441	0.383	0.327	0.282
1550	Median	0.935	0.847	0.773	0.713	0.647	0.594	0.545
	Upper 95%	1.178	1.192	1.175	1.172	1.144	1.101	1.080
	Lower 95%	0.716	0.600	0.487	0.426	0.367	0.320	0.270
1600	Median	0.926	0.841	0.769	0.695	0.633	0.577	0.525
	Upper 95%							

	Counterfactual of population size at 5 year intervals							
Additional adult mortality	Estimate	yr.5	yr.10	yr.15	yr.20	yr.25	yr.30	yr.35
	Upper 95%	1.179	1.201	1.181	1.141	1.119	1.057	1.049

Table A2_7.3. Kittiwake, demographic rate set 2, counterfactuals of population growth rate calculated between year 5 and year 35, using a matched runs method, from 1000 density independent simulations.

Additional adult mortality	Lower 95%	Median	Upper 95%
0	1.000	1.000	1.000
50	0.999	0.999	0.999
100	0.999	0.999	0.999
150	0.998	0.998	0.998
200	0.998	0.998	0.998
250	0.997	0.997	0.997
300	0.997	0.997	0.997
350	0.996	0.996	0.996
400	0.995	0.996	0.996
450	0.995	0.995	0.995
500	0.994	0.994	0.994
550	0.994	0.994	0.994
600	0.993	0.993	0.993
650	0.993	0.993	0.993
700	0.992	0.992	0.992
750	0.991	0.992	0.992
800	0.991	0.991	0.991
850	0.990	0.990	0.991
900	0.990	0.990	0.990
950	0.989	0.989	0.989
1000	0.989	0.989	0.989
1050	0.988	0.988	0.988
1100	0.988	0.988	0.988
1150	0.987	0.987	0.987

Additional adult mortality	Lower 95%	Median	Upper 95%
1200	0.986	0.987	0.987
1250	0.986	0.986	0.986
1300	0.985	0.985	0.986
1350	0.985	0.985	0.985
1400	0.984	0.984	0.984
1450	0.984	0.984	0.984
1500	0.983	0.983	0.983
1550	0.982	0.983	0.983
1600	0.982	0.982	0.982

Table A2_7.4. Kittiwake, demographic rate set 2, counterfactuals of population growth rate calculated between year 5 and year 35, using a non-matched runs method, from 1000 density independent simulations.

Additional adult mortality	Lower 95%	Median	Upper 95%
0	1.000	1.000	1.000
50	0.980	0.999	1.021
100	0.978	0.998	1.019
150	0.976	0.997	1.019
200	0.974	0.997	1.018
250	0.977	0.997	1.018
300	0.975	0.996	1.017
350	0.976	0.996	1.016
400	0.975	0.995	1.016
450	0.974	0.994	1.017
500	0.973	0.994	1.015
550	0.973	0.994	1.015
600	0.972	0.993	1.014
650	0.971	0.992	1.012
700	0.971	0.992	1.013
750	0.971	0.991	1.013
800	0.969	0.991	1.011
850	0.969	0.990	1.012
900	0.969	0.989	1.012
950	0.968	0.989	1.011
1000	0.967	0.988	1.010
1050	0.968	0.987	1.009
1100	0.967	0.987	1.008
1150	0.967	0.987	1.009

Additional adult mortality	Lower 95%	Median	Upper 95%
1200	0.964	0.986	1.007
1250	0.965	0.985	1.007
1300	0.965	0.985	1.006
1350	0.963	0.985	1.006
1400	0.962	0.983	1.005
1450	0.963	0.983	1.004
1500	0.961	0.983	1.004
1550	0.963	0.982	1.003
1600	0.962	0.981	1.002

Table A2_8.1. Kittiwake, demographic rate set 2, counterfactuals of population size after 5 to 35 years, estimated using a matched runs method, from 1000 density dependent simulations.

Additional adult mortality	Counterfactual of population size at 5 year intervals							
	Estimate	yr.5	yr.10	yr.15	yr.20	yr.25	yr.30	yr.35
0	Lower 95%	1.000	1.000	1.000	1.000	1.000	1.000	1.000
	Median	1.000	1.000	1.000	1.000	1.000	1.000	1.000
	Upper 95%	1.000	1.000	1.000	1.000	1.000	1.000	1.000
50	Lower 95%	0.998	0.997	0.996	0.995	0.995	0.994	0.994
	Median	0.998	0.997	0.996	0.996	0.995	0.995	0.995
	Upper 95%	0.998	0.997	0.996	0.996	0.996	0.996	0.996
100	Lower 95%	0.996	0.993	0.991	0.990	0.989	0.989	0.989
	Median	0.996	0.994	0.992	0.991	0.991	0.990	0.990
	Upper 95%	0.997	0.994	0.993	0.992	0.991	0.991	0.991
150	Lower 95%	0.994	0.990	0.987	0.985	0.984	0.984	0.983
	Median	0.995	0.990	0.988	0.987	0.986	0.985	0.985
	Upper 95%	0.995	0.991	0.989	0.988	0.987	0.987	0.987
200	Lower 95%	0.992	0.986	0.982	0.980	0.979	0.978	0.977
	Median	0.993	0.987	0.984	0.982	0.981	0.980	0.980
	Upper 95%	0.993	0.988	0.985	0.984	0.983	0.982	0.982
250	Lower 95%	0.990	0.983	0.978	0.975	0.973	0.972	0.972
	Median	0.991	0.984	0.980	0.978	0.976	0.975	0.975
	Upper 95%	0.991	0.985	0.982	0.980	0.978	0.978	0.977
300	Lower 95%	0.988	0.979	0.974	0.970	0.968	0.967	0.966
	Median	0.989	0.981	0.976	0.973	0.971	0.970	0.970
	Upper 95%	0.990	0.982	0.978	0.976	0.974	0.973	0.973
350	Lower 95%	0.987	0.976	0.969	0.965	0.963	0.961	0.961
	Median	0.987	0.978	0.972	0.969	0.967	0.965	0.965

	Counterfactual of population size at 5 year intervals							
Additional adult mortality	Estimate	yr.5	yr.10	yr.15	yr.20	yr.25	yr.30	yr.35
	Upper 95%	0.988	0.979	0.974	0.971	0.970	0.969	0.968
400	Lower 95%	0.985	0.973	0.965	0.961	0.957	0.956	0.955
	Median	0.986	0.975	0.968	0.964	0.962	0.960	0.960
	Upper 95%	0.986	0.976	0.971	0.967	0.965	0.964	0.964
450	Lower 95%	0.983	0.969	0.960	0.955	0.952	0.950	0.949
	Median	0.984	0.971	0.964	0.960	0.957	0.955	0.954
	Upper 95%	0.985	0.973	0.967	0.963	0.961	0.960	0.959
500	Lower 95%	0.981	0.966	0.956	0.951	0.947	0.945	0.943
	Median	0.982	0.968	0.960	0.955	0.952	0.951	0.949
	Upper 95%	0.983	0.971	0.963	0.959	0.957	0.955	0.954
550	Lower 95%	0.979	0.962	0.952	0.946	0.941	0.939	0.938
	Median	0.980	0.965	0.956	0.951	0.948	0.945	0.944
	Upper 95%	0.981	0.968	0.960	0.955	0.952	0.951	0.950
600	Lower 95%	0.977	0.959	0.948	0.941	0.937	0.934	0.932
	Median	0.978	0.962	0.952	0.946	0.943	0.940	0.939
	Upper 95%	0.980	0.965	0.956	0.951	0.948	0.946	0.946
650	Lower 95%	0.975	0.956	0.943	0.936	0.931	0.928	0.926
	Median	0.977	0.959	0.948	0.942	0.938	0.936	0.934
	Upper 95%	0.978	0.962	0.953	0.947	0.944	0.942	0.940
700	Lower 95%	0.973	0.952	0.939	0.931	0.925	0.922	0.920
	Median	0.975	0.956	0.944	0.937	0.933	0.930	0.929
	Upper 95%	0.976	0.958	0.949	0.943	0.939	0.937	0.936
750	Lower 95%	0.971	0.949	0.935	0.926	0.920	0.917	0.915
	Median	0.973	0.952	0.940	0.933	0.928	0.925	0.924
	Upper 95%	0.974	0.956	0.945	0.939	0.935	0.933	0.932

	Counterfactual of population size at 5 year intervals							
Additional adult mortality	Estimate	yr.5	yr.10	yr.15	yr.20	yr.25	yr.30	yr.35
800	Lower 95%	0.969	0.945	0.930	0.921	0.915	0.911	0.909
	Median	0.971	0.949	0.936	0.928	0.923	0.920	0.918
	Upper 95%	0.973	0.953	0.942	0.935	0.931	0.928	0.926
850	Lower 95%	0.967	0.942	0.926	0.916	0.910	0.907	0.903
	Median	0.970	0.946	0.932	0.924	0.919	0.915	0.913
	Upper 95%	0.971	0.950	0.938	0.931	0.926	0.924	0.922
900	Lower 95%	0.966	0.939	0.921	0.911	0.903	0.898	0.897
	Median	0.968	0.943	0.928	0.919	0.914	0.910	0.908
	Upper 95%	0.969	0.947	0.934	0.927	0.922	0.919	0.918
950	Lower 95%	0.964	0.935	0.917	0.906	0.899	0.894	0.892
	Median	0.966	0.940	0.924	0.915	0.909	0.905	0.903
	Upper 95%	0.968	0.944	0.930	0.922	0.917	0.914	0.913
1000	Lower 95%	0.962	0.932	0.913	0.900	0.893	0.889	0.885
	Median	0.964	0.937	0.920	0.911	0.905	0.901	0.898
	Upper 95%	0.966	0.941	0.926	0.918	0.914	0.910	0.907
1050	Lower 95%	0.960	0.928	0.908	0.896	0.889	0.883	0.880
	Median	0.962	0.934	0.916	0.906	0.899	0.895	0.893
	Upper 95%	0.964	0.938	0.923	0.914	0.909	0.906	0.903
1100	Lower 95%	0.958	0.925	0.904	0.891	0.882	0.877	0.874
	Median	0.960	0.930	0.912	0.901	0.895	0.890	0.887
	Upper 95%	0.963	0.935	0.919	0.911	0.905	0.901	0.899
1150	Lower 95%	0.956	0.922	0.900	0.886	0.877	0.872	0.869
	Median	0.959	0.927	0.908	0.897	0.890	0.886	0.883
	Upper 95%	0.961	0.932	0.916	0.907	0.900	0.896	0.894
1200	Lower 95%	0.954	0.918	0.895	0.880	0.871	0.865	0.861

	Counterfactual of population size at 5 year intervals							
Additional adult mortality	Estimate	yr.5	yr.10	yr.15	yr.20	yr.25	yr.30	yr.35
	Median	0.957	0.924	0.904	0.892	0.885	0.880	0.877
	Upper 95%	0.959	0.929	0.912	0.902	0.896	0.892	0.889
	Lower 95%	0.952	0.915	0.892	0.876	0.867	0.861	0.857
1250	Median	0.955	0.921	0.901	0.888	0.880	0.875	0.872
	Upper 95%	0.957	0.926	0.909	0.898	0.891	0.887	0.885
	Lower 95%	0.950	0.912	0.887	0.871	0.861	0.855	0.851
1300	Median	0.953	0.918	0.896	0.883	0.875	0.870	0.866
	Upper 95%	0.956	0.924	0.904	0.893	0.886	0.883	0.881
	Lower 95%	0.949	0.908	0.882	0.867	0.855	0.848	0.843
1350	Median	0.952	0.915	0.893	0.879	0.870	0.865	0.861
	Upper 95%	0.954	0.921	0.901	0.889	0.883	0.878	0.875
	Lower 95%	0.947	0.905	0.879	0.863	0.850	0.844	0.840
1400	Median	0.950	0.912	0.889	0.875	0.866	0.860	0.856
	Upper 95%	0.952	0.917	0.898	0.885	0.877	0.873	0.869
	Lower 95%	0.945	0.901	0.874	0.856	0.845	0.838	0.834
1450	Median	0.948	0.909	0.885	0.870	0.860	0.854	0.850
	Upper 95%	0.951	0.915	0.894	0.881	0.873	0.869	0.866
	Lower 95%	0.943	0.898	0.870	0.852	0.840	0.832	0.828
1500	Median	0.946	0.905	0.880	0.865	0.855	0.849	0.845
	Upper 95%	0.949	0.912	0.890	0.877	0.869	0.863	0.860
	Lower 95%	0.941	0.895	0.866	0.847	0.835	0.825	0.821
1550	Median	0.945	0.902	0.877	0.861	0.851	0.845	0.840
	Upper 95%	0.947	0.909	0.887	0.873	0.865	0.860	0.856
	Lower 95%	0.939	0.891	0.861	0.842	0.828	0.820	0.816
1600	Median	0.943	0.899	0.873	0.856	0.846	0.839	0.835
	Upper 95%	0.943	0.899	0.873	0.856	0.846	0.839	0.835

	Counterfactual of population size at 5 year intervals							
Additional adult mortality	Estimate	yr.5	yr.10	yr.15	yr.20	yr.25	yr.30	yr.35
	Upper 95%	0.946	0.906	0.883	0.869	0.860	0.855	0.851

Table A2_8.2. Kittiwake, demographic rate set 2, counterfactuals of population size after 5 to 35 years, estimated using a non-matched runs method, from 1000 density dependent simulations.

Additional adult mortality	Counterfactual of population size at 5 year intervals							
	Estimate	yr.5	yr.10	yr.15	yr.20	yr.25	yr.30	yr.35
0	Lower 95%	1.000	1.000	1.000	1.000	1.000	1.000	1.000
	Median	1.000	1.000	1.000	1.000	1.000	1.000	1.000
	Upper 95%	1.000	1.000	1.000	1.000	1.000	1.000	1.000
50	Lower 95%	0.841	0.808	0.788	0.795	0.797	0.786	0.781
	Median	0.999	1.004	1.003	0.996	0.992	0.997	0.993
	Upper 95%	1.182	1.237	1.246	1.241	1.258	1.248	1.228
100	Lower 95%	0.846	0.810	0.802	0.796	0.782	0.790	0.789
	Median	0.997	1.003	0.998	0.999	0.987	0.994	0.991
	Upper 95%	1.202	1.230	1.269	1.257	1.249	1.257	1.237
150	Lower 95%	0.846	0.817	0.785	0.782	0.792	0.777	0.779
	Median	1.000	0.998	0.993	0.996	0.989	0.985	0.976
	Upper 95%	1.207	1.265	1.253	1.249	1.222	1.224	1.235
200	Lower 95%	0.831	0.803	0.798	0.794	0.786	0.770	0.775
	Median	0.996	0.992	0.991	0.994	0.975	0.968	0.976
	Upper 95%	1.190	1.205	1.219	1.234	1.219	1.230	1.218
250	Lower 95%	0.832	0.796	0.782	0.785	0.778	0.772	0.752
	Median	0.988	0.995	0.988	0.985	0.979	0.968	0.966
	Upper 95%	1.178	1.225	1.241	1.219	1.236	1.223	1.214
300	Lower 95%	0.824	0.783	0.776	0.775	0.769	0.756	0.762
	Median	0.994	0.993	0.975	0.980	0.964	0.967	0.958
	Upper 95%	1.188	1.219	1.236	1.229	1.220	1.218	1.247
350	Lower 95%	0.826	0.806	0.773	0.775	0.779	0.764	0.764
	Median	0.992	0.983	0.974	0.971	0.965	0.964	0.959

	Counterfactual of population size at 5 year intervals							
Additional adult mortality	Estimate	yr.5	yr.10	yr.15	yr.20	yr.25	yr.30	yr.35
	Upper 95%	1.183	1.220	1.224	1.227	1.199	1.218	1.197
400	Lower 95%	0.836	0.799	0.785	0.771	0.771	0.759	0.754
	Median	0.990	0.986	0.966	0.970	0.961	0.958	0.956
	Upper 95%	1.171	1.190	1.216	1.208	1.210	1.190	1.202
450	Lower 95%	0.823	0.785	0.771	0.761	0.769	0.761	0.746
	Median	0.986	0.973	0.967	0.965	0.954	0.952	0.945
	Upper 95%	1.174	1.199	1.197	1.206	1.204	1.182	1.180
500	Lower 95%	0.830	0.794	0.775	0.764	0.758	0.753	0.747
	Median	0.986	0.974	0.965	0.962	0.948	0.947	0.949
	Upper 95%	1.177	1.207	1.209	1.204	1.188	1.201	1.178
550	Lower 95%	0.822	0.780	0.755	0.765	0.760	0.737	0.746
	Median	0.981	0.970	0.960	0.949	0.944	0.946	0.938
	Upper 95%	1.164	1.194	1.198	1.206	1.191	1.182	1.183
600	Lower 95%	0.818	0.776	0.770	0.761	0.758	0.744	0.734
	Median	0.987	0.968	0.960	0.952	0.942	0.937	0.931
	Upper 95%	1.165	1.193	1.195	1.195	1.175	1.178	1.162
650	Lower 95%	0.819	0.787	0.755	0.752	0.752	0.743	0.736
	Median	0.982	0.969	0.956	0.947	0.936	0.937	0.923
	Upper 95%	1.166	1.179	1.194	1.194	1.171	1.156	1.176
700	Lower 95%	0.822	0.788	0.755	0.751	0.739	0.739	0.742
	Median	0.976	0.963	0.948	0.940	0.922	0.925	0.925
	Upper 95%	1.165	1.184	1.165	1.166	1.162	1.145	1.156
750	Lower 95%	0.826	0.786	0.755	0.741	0.735	0.733	0.714
	Median	0.977	0.963	0.940	0.933	0.927	0.919	0.916
	Upper 95%	1.155	1.180	1.197	1.170	1.162	1.141	1.167

	Counterfactual of population size at 5 year intervals							
Additional adult mortality	Estimate	yr.5	yr.10	yr.15	yr.20	yr.25	yr.30	yr.35
800	Lower 95%	0.815	0.778	0.758	0.750	0.741	0.741	0.734
	Median	0.974	0.962	0.935	0.932	0.921	0.917	0.911
	Upper 95%	1.162	1.186	1.157	1.165	1.143	1.133	1.127
850	Lower 95%	0.822	0.762	0.745	0.748	0.734	0.722	0.716
	Median	0.978	0.954	0.934	0.927	0.912	0.908	0.909
	Upper 95%	1.145	1.181	1.167	1.154	1.139	1.139	1.172
900	Lower 95%	0.809	0.773	0.755	0.737	0.723	0.712	0.712
	Median	0.970	0.946	0.932	0.923	0.912	0.905	0.902
	Upper 95%	1.153	1.173	1.149	1.161	1.141	1.145	1.135
950	Lower 95%	0.804	0.769	0.747	0.718	0.715	0.712	0.708
	Median	0.969	0.948	0.930	0.921	0.906	0.901	0.893
	Upper 95%	1.142	1.165	1.160	1.163	1.137	1.141	1.141
1000	Lower 95%	0.819	0.762	0.738	0.727	0.729	0.712	0.702
	Median	0.967	0.944	0.926	0.927	0.901	0.899	0.890
	Upper 95%	1.147	1.183	1.163	1.151	1.149	1.117	1.123
1050	Lower 95%	0.805	0.762	0.731	0.722	0.717	0.703	0.698
	Median	0.963	0.940	0.918	0.913	0.903	0.887	0.890
	Upper 95%	1.130	1.160	1.160	1.132	1.102	1.107	1.111
1100	Lower 95%	0.807	0.752	0.735	0.718	0.704	0.696	0.696
	Median	0.957	0.933	0.918	0.905	0.892	0.888	0.877
	Upper 95%	1.153	1.175	1.161	1.174	1.135	1.119	1.127
1150	Lower 95%	0.803	0.763	0.741	0.716	0.705	0.704	0.687
	Median	0.962	0.935	0.916	0.906	0.888	0.886	0.877
	Upper 95%	1.136	1.156	1.148	1.134	1.112	1.119	1.124
1200	Lower 95%	0.803	0.755	0.719	0.700	0.694	0.694	0.680

	Counterfactual of population size at 5 year intervals							
Additional adult mortality	Estimate	yr.5	yr.10	yr.15	yr.20	yr.25	yr.30	yr.35
	Median	0.958	0.930	0.907	0.896	0.879	0.875	0.870
	Upper 95%	1.138	1.143	1.139	1.127	1.102	1.109	1.133
	Lower 95%	0.809	0.759	0.716	0.717	0.705	0.685	0.696
1250	Median	0.956	0.928	0.909	0.892	0.884	0.874	0.862
	Upper 95%	1.139	1.141	1.121	1.114	1.104	1.097	1.072
	Lower 95%	0.785	0.733	0.715	0.706	0.693	0.689	0.665
1300	Median	0.959	0.928	0.900	0.887	0.870	0.865	0.858
	Upper 95%	1.139	1.127	1.127	1.113	1.101	1.100	1.093
	Lower 95%	0.792	0.750	0.712	0.697	0.684	0.671	0.677
1350	Median	0.955	0.926	0.901	0.884	0.866	0.866	0.858
	Upper 95%	1.129	1.118	1.121	1.113	1.101	1.071	1.077
	Lower 95%	0.796	0.748	0.714	0.699	0.694	0.681	0.666
1400	Median	0.958	0.919	0.892	0.883	0.863	0.863	0.851
	Upper 95%	1.128	1.125	1.113	1.098	1.104	1.067	1.066
	Lower 95%	0.792	0.729	0.710	0.687	0.675	0.677	0.665
1450	Median	0.947	0.915	0.886	0.873	0.853	0.855	0.848
	Upper 95%	1.135	1.121	1.113	1.101	1.101	1.082	1.068
	Lower 95%	0.794	0.737	0.698	0.683	0.670	0.666	0.669
1500	Median	0.949	0.909	0.881	0.864	0.853	0.845	0.841
	Upper 95%	1.117	1.122	1.127	1.076	1.069	1.075	1.060
	Lower 95%	0.791	0.742	0.713	0.684	0.667	0.660	0.664
1550	Median	0.947	0.910	0.886	0.868	0.849	0.839	0.832
	Upper 95%	1.127	1.112	1.123	1.092	1.061	1.062	1.059
	Lower 95%	0.795	0.729	0.699	0.677	0.668	0.665	0.657
1600	Median	0.946	0.905	0.876	0.858	0.843	0.835	0.830
	Upper 95%							

	Counterfactual of population size at 5 year intervals							
Additional adult mortality	Estimate	yr.5	yr.10	yr.15	yr.20	yr.25	yr.30	yr.35
	Upper 95%	1.138	1.124	1.103	1.079	1.062	1.049	1.059

Table A2_8.3. Kittiwake, demographic rate set 2, counterfactuals of population growth rate calculated between year 5 and year 35, using a matched runs method, from 1000 density dependent simulations.

Additional adult mortality	Lower 95%	Median	Upper 95%
0	1.000	1.000	1.000
50	1.000	1.000	1.000
100	1.000	1.000	1.000
150	1.000	1.000	1.000
200	0.999	1.000	1.000
250	0.999	0.999	1.000
300	0.999	0.999	0.999
350	0.999	0.999	0.999
400	0.999	0.999	0.999
450	0.999	0.999	0.999
500	0.999	0.999	0.999
550	0.999	0.999	0.999
600	0.998	0.999	0.999
650	0.998	0.999	0.999
700	0.998	0.998	0.999
750	0.998	0.998	0.999
800	0.998	0.998	0.998
850	0.998	0.998	0.998
900	0.997	0.998	0.998
950	0.997	0.998	0.998
1000	0.997	0.998	0.998
1050	0.997	0.997	0.998
1100	0.997	0.997	0.998
1150	0.997	0.997	0.998

Additional adult mortality	Lower 95%	Median	Upper 95%
1200	0.997	0.997	0.998
1250	0.996	0.997	0.997
1300	0.996	0.997	0.997
1350	0.996	0.997	0.997
1400	0.996	0.997	0.997
1450	0.996	0.996	0.997
1500	0.996	0.996	0.997
1550	0.995	0.996	0.997
1600	0.995	0.996	0.997

Table A2_8.4. Kittiwake, demographic rate set 2, counterfactuals of population growth rate calculated between year 5 and year 35, using a non-matched runs method, from 1000 density dependent simulations.

Additional adult mortality	Lower 95%	Median	Upper 95%
0	1.000	1.000	1.000
50	0.991	1.000	1.009
100	0.991	1.000	1.009
150	0.990	0.999	1.008
200	0.990	0.999	1.008
250	0.990	0.999	1.009
300	0.990	0.999	1.009
350	0.990	0.999	1.009
400	0.989	0.999	1.008
450	0.989	0.999	1.008
500	0.989	0.998	1.008
550	0.989	0.998	1.008
600	0.989	0.998	1.008
650	0.989	0.998	1.008
700	0.989	0.998	1.007
750	0.988	0.998	1.008
800	0.989	0.998	1.007
850	0.988	0.998	1.007
900	0.988	0.997	1.006
950	0.988	0.997	1.007
1000	0.987	0.997	1.007
1050	0.987	0.997	1.007
1100	0.988	0.997	1.007
1150	0.987	0.997	1.007

Additional adult mortality	Lower 95%	Median	Upper 95%
1200	0.987	0.997	1.007
1250	0.987	0.996	1.006
1300	0.987	0.996	1.007
1350	0.987	0.996	1.006
1400	0.987	0.996	1.006
1450	0.987	0.996	1.006
1500	0.987	0.996	1.006
1550	0.986	0.996	1.006
1600	0.986	0.996	1.006

Table A2_9.1. Guillemot, demographic rate set 1, counterfactuals of population size after 5 to 35 years, estimated using a matched runs method, from 1000 density independent simulations.

Additional adult mortality	Counterfactual of population size at 5 year intervals							
	Estimate	yr.5	yr.10	yr.15	yr.20	yr.25	yr.30	yr.35
0	Lower 95%	1.000	1.000	1.000	1.000	1.000	1.000	1.000
	Median	1.000	1.000	1.000	1.000	1.000	1.000	1.000
	Upper 95%	1.000	1.000	1.000	1.000	1.000	1.000	1.000
50	Lower 95%	0.998	0.995	0.992	0.989	0.986	0.983	0.980
	Median	0.998	0.995	0.992	0.989	0.986	0.983	0.980
	Upper 95%	0.998	0.995	0.992	0.989	0.986	0.983	0.980
100	Lower 95%	0.995	0.989	0.983	0.977	0.971	0.966	0.960
	Median	0.995	0.989	0.983	0.977	0.972	0.966	0.960
	Upper 95%	0.995	0.989	0.983	0.978	0.972	0.966	0.960
150	Lower 95%	0.993	0.984	0.975	0.966	0.957	0.949	0.940
	Median	0.993	0.984	0.975	0.966	0.958	0.949	0.940
	Upper 95%	0.993	0.984	0.975	0.966	0.958	0.949	0.941
200	Lower 95%	0.990	0.978	0.967	0.955	0.944	0.932	0.921
	Median	0.990	0.979	0.967	0.955	0.944	0.933	0.921
	Upper 95%	0.991	0.979	0.967	0.955	0.944	0.933	0.922
250	Lower 95%	0.988	0.973	0.959	0.944	0.930	0.916	0.902
	Median	0.988	0.973	0.959	0.944	0.930	0.916	0.903
	Upper 95%	0.988	0.973	0.959	0.945	0.931	0.917	0.903
300	Lower 95%	0.986	0.968	0.950	0.933	0.917	0.900	0.884
	Median	0.986	0.968	0.951	0.934	0.917	0.901	0.884
	Upper 95%	0.986	0.968	0.951	0.934	0.917	0.901	0.885
350	Lower 95%	0.983	0.963	0.942	0.923	0.903	0.885	0.866
	Median	0.983	0.963	0.943	0.923	0.904	0.885	0.866

	Counterfactual of population size at 5 year intervals							
Additional adult mortality	Estimate	yr.5	yr.10	yr.15	yr.20	yr.25	yr.30	yr.35
	Upper 95%	0.983	0.963	0.943	0.923	0.904	0.885	0.867
400	Lower 95%	0.981	0.957	0.934	0.912	0.890	0.869	0.848
	Median	0.981	0.958	0.935	0.913	0.891	0.870	0.849
	Upper 95%	0.981	0.958	0.935	0.913	0.891	0.870	0.849
450	Lower 95%	0.978	0.952	0.927	0.902	0.878	0.854	0.831
	Median	0.979	0.952	0.927	0.902	0.878	0.854	0.832
	Upper 95%	0.979	0.953	0.927	0.902	0.878	0.855	0.832
500	Lower 95%	0.976	0.947	0.919	0.891	0.865	0.839	0.814
	Median	0.976	0.947	0.919	0.892	0.865	0.840	0.815
	Upper 95%	0.976	0.947	0.919	0.892	0.866	0.840	0.815
550	Lower 95%	0.974	0.942	0.911	0.881	0.852	0.825	0.798
	Median	0.974	0.942	0.911	0.882	0.853	0.825	0.798
	Upper 95%	0.974	0.942	0.912	0.882	0.853	0.826	0.799
600	Lower 95%	0.971	0.937	0.903	0.871	0.840	0.810	0.781
	Median	0.971	0.937	0.904	0.872	0.841	0.811	0.782
	Upper 95%	0.972	0.937	0.904	0.872	0.841	0.811	0.782
650	Lower 95%	0.969	0.931	0.896	0.861	0.828	0.796	0.765
	Median	0.969	0.932	0.896	0.862	0.828	0.797	0.766
	Upper 95%	0.969	0.932	0.896	0.862	0.829	0.797	0.767
700	Lower 95%	0.966	0.926	0.888	0.851	0.816	0.782	0.750
	Median	0.967	0.927	0.888	0.852	0.816	0.783	0.750
	Upper 95%	0.967	0.927	0.889	0.852	0.817	0.783	0.751
750	Lower 95%	0.964	0.921	0.880	0.841	0.804	0.768	0.734
	Median	0.964	0.922	0.881	0.842	0.805	0.769	0.735
	Upper 95%	0.965	0.922	0.881	0.843	0.805	0.770	0.736

	Counterfactual of population size at 5 year intervals							
Additional adult mortality	Estimate	yr.5	yr.10	yr.15	yr.20	yr.25	yr.30	yr.35
800	Lower 95%	0.962	0.916	0.873	0.832	0.792	0.755	0.719
	Median	0.962	0.917	0.873	0.832	0.793	0.756	0.720
	Upper 95%	0.962	0.917	0.874	0.833	0.794	0.756	0.721
850	Lower 95%	0.959	0.911	0.866	0.822	0.781	0.742	0.705
	Median	0.960	0.912	0.866	0.823	0.782	0.742	0.705
	Upper 95%	0.960	0.912	0.867	0.823	0.782	0.743	0.706
900	Lower 95%	0.957	0.906	0.858	0.813	0.770	0.729	0.690
	Median	0.957	0.907	0.859	0.813	0.770	0.730	0.691
	Upper 95%	0.958	0.907	0.859	0.814	0.771	0.730	0.692
950	Lower 95%	0.955	0.901	0.851	0.803	0.758	0.716	0.676
	Median	0.955	0.902	0.851	0.804	0.759	0.717	0.677
	Upper 95%	0.955	0.902	0.852	0.805	0.760	0.718	0.678
1000	Lower 95%	0.952	0.896	0.844	0.794	0.747	0.703	0.662
	Median	0.953	0.897	0.844	0.795	0.748	0.704	0.663
	Upper 95%	0.953	0.897	0.845	0.796	0.749	0.705	0.664
1050	Lower 95%	0.950	0.891	0.836	0.785	0.736	0.691	0.649
	Median	0.950	0.892	0.837	0.786	0.737	0.692	0.649
	Upper 95%	0.951	0.893	0.838	0.786	0.738	0.693	0.650
1100	Lower 95%	0.948	0.887	0.829	0.776	0.726	0.679	0.635
	Median	0.948	0.887	0.830	0.777	0.727	0.680	0.636
	Upper 95%	0.949	0.888	0.831	0.777	0.727	0.681	0.637
1150	Lower 95%	0.945	0.882	0.822	0.767	0.715	0.667	0.622
	Median	0.946	0.882	0.823	0.768	0.716	0.668	0.623
	Upper 95%	0.946	0.883	0.824	0.768	0.717	0.669	0.624
1200	Lower 95%	0.943	0.877	0.815	0.758	0.705	0.655	0.609

	Counterfactual of population size at 5 year intervals							
Additional adult mortality	Estimate	yr.5	yr.10	yr.15	yr.20	yr.25	yr.30	yr.35
	Median	0.944	0.877	0.816	0.759	0.706	0.656	0.610
	Upper 95%	0.944	0.878	0.817	0.760	0.707	0.657	0.611
	Lower 95%	0.941	0.872	0.808	0.749	0.695	0.644	0.597
1250	Median	0.941	0.873	0.809	0.750	0.695	0.645	0.598
	Upper 95%	0.942	0.873	0.810	0.751	0.696	0.646	0.599
	Lower 95%	0.938	0.867	0.801	0.741	0.684	0.632	0.585
1300	Median	0.939	0.868	0.802	0.741	0.685	0.633	0.585
	Upper 95%	0.939	0.869	0.803	0.742	0.686	0.634	0.586
	Lower 95%	0.936	0.862	0.795	0.732	0.674	0.621	0.572
1350	Median	0.937	0.863	0.795	0.733	0.675	0.622	0.573
	Upper 95%	0.937	0.864	0.796	0.734	0.676	0.623	0.574
	Lower 95%	0.934	0.858	0.788	0.724	0.665	0.610	0.561
1400	Median	0.934	0.858	0.789	0.724	0.665	0.611	0.562
	Upper 95%	0.935	0.859	0.789	0.725	0.666	0.612	0.563
	Lower 95%	0.932	0.853	0.781	0.715	0.655	0.600	0.549
1450	Median	0.932	0.854	0.782	0.716	0.656	0.601	0.550
	Upper 95%	0.933	0.854	0.783	0.717	0.657	0.602	0.551
	Lower 95%	0.929	0.848	0.774	0.707	0.645	0.589	0.538
1500	Median	0.930	0.849	0.775	0.708	0.646	0.590	0.539
	Upper 95%	0.930	0.850	0.776	0.709	0.647	0.591	0.540
	Lower 95%	0.927	0.844	0.768	0.699	0.636	0.579	0.527
1550	Median	0.928	0.844	0.769	0.700	0.637	0.580	0.528
	Upper 95%	0.928	0.845	0.770	0.701	0.638	0.581	0.529
	Lower 95%	0.925	0.839	0.761	0.691	0.626	0.568	0.516
1600	Median	0.925	0.840	0.762	0.691	0.628	0.569	0.517
	Upper 95%							

	Counterfactual of population size at 5 year intervals							
Additional adult mortality	Estimate	yr.5	yr.10	yr.15	yr.20	yr.25	yr.30	yr.35
	Upper 95%	0.926	0.841	0.763	0.693	0.629	0.571	0.518

Table A2_9.2. Guillemot, demographic rate set 1, counterfactuals of population size after 5 to 35 years, estimated using a non-matched runs method, from 1000 density independent simulations.

Additional adult mortality	Counterfactual of population size at 5 year intervals							
	Estimate	yr.5	yr.10	yr.15	yr.20	yr.25	yr.30	yr.35
0	Lower 95%	1.000	1.000	1.000	1.000	1.000	1.000	1.000
	Median	1.000	1.000	1.000	1.000	1.000	1.000	1.000
	Upper 95%	1.000	1.000	1.000	1.000	1.000	1.000	1.000
50	Lower 95%	0.950	0.926	0.911	0.897	0.880	0.867	0.860
	Median	0.997	0.996	0.992	0.987	0.986	0.982	0.980
	Upper 95%	1.045	1.069	1.083	1.092	1.095	1.106	1.111
100	Lower 95%	0.947	0.919	0.900	0.886	0.868	0.849	0.837
	Median	0.995	0.989	0.984	0.973	0.969	0.965	0.956
	Upper 95%	1.038	1.064	1.072	1.077	1.077	1.087	1.089
150	Lower 95%	0.945	0.915	0.893	0.872	0.855	0.837	0.820
	Median	0.993	0.983	0.975	0.965	0.956	0.947	0.941
	Upper 95%	1.041	1.058	1.063	1.074	1.077	1.078	1.085
200	Lower 95%	0.944	0.907	0.884	0.861	0.834	0.811	0.793
	Median	0.990	0.978	0.967	0.955	0.940	0.928	0.919
	Upper 95%	1.037	1.049	1.056	1.056	1.056	1.052	1.051
250	Lower 95%	0.939	0.906	0.874	0.844	0.827	0.808	0.784
	Median	0.987	0.971	0.955	0.940	0.923	0.908	0.897
	Upper 95%	1.033	1.045	1.042	1.040	1.037	1.038	1.038
300	Lower 95%	0.940	0.899	0.865	0.843	0.817	0.790	0.771
	Median	0.985	0.966	0.951	0.932	0.915	0.897	0.883
	Upper 95%	1.035	1.041	1.039	1.032	1.030	1.024	1.015
350	Lower 95%	0.935	0.894	0.864	0.836	0.809	0.784	0.753
	Median	0.983	0.962	0.943	0.922	0.901	0.883	0.865

	Counterfactual of population size at 5 year intervals							
Additional adult mortality	Estimate	yr.5	yr.10	yr.15	yr.20	yr.25	yr.30	yr.35
	Upper 95%	1.029	1.034	1.032	1.024	1.010	0.993	0.986
400	Lower 95%	0.937	0.893	0.857	0.827	0.796	0.769	0.744
	Median	0.982	0.957	0.935	0.911	0.888	0.867	0.848
	Upper 95%	1.027	1.024	1.020	1.012	0.990	0.971	0.969
450	Lower 95%	0.931	0.886	0.850	0.811	0.780	0.749	0.721
	Median	0.978	0.951	0.924	0.900	0.874	0.851	0.830
	Upper 95%	1.028	1.024	1.023	1.003	0.992	0.972	0.946
500	Lower 95%	0.930	0.877	0.840	0.801	0.768	0.736	0.708
	Median	0.975	0.945	0.918	0.891	0.863	0.838	0.815
	Upper 95%	1.023	1.019	1.001	0.986	0.964	0.947	0.925
550	Lower 95%	0.927	0.875	0.839	0.792	0.760	0.732	0.701
	Median	0.974	0.941	0.910	0.880	0.850	0.823	0.795
	Upper 95%	1.022	1.011	0.992	0.971	0.948	0.920	0.908
600	Lower 95%	0.924	0.870	0.828	0.793	0.750	0.721	0.683
	Median	0.972	0.937	0.902	0.869	0.842	0.812	0.781
	Upper 95%	1.018	1.004	0.991	0.963	0.937	0.909	0.890
650	Lower 95%	0.921	0.869	0.821	0.772	0.734	0.700	0.672
	Median	0.969	0.931	0.896	0.861	0.827	0.794	0.764
	Upper 95%	1.017	1.004	0.982	0.956	0.929	0.909	0.879
700	Lower 95%	0.921	0.862	0.819	0.773	0.731	0.690	0.659
	Median	0.967	0.926	0.889	0.851	0.815	0.781	0.750
	Upper 95%	1.011	0.994	0.967	0.938	0.911	0.883	0.857
750	Lower 95%	0.919	0.859	0.809	0.763	0.721	0.679	0.646
	Median	0.965	0.922	0.881	0.841	0.803	0.767	0.733
	Upper 95%	1.007	0.988	0.961	0.927	0.903	0.867	0.836

	Counterfactual of population size at 5 year intervals							
Additional adult mortality	Estimate	yr.5	yr.10	yr.15	yr.20	yr.25	yr.30	yr.35
800	Lower 95%	0.917	0.854	0.801	0.754	0.713	0.668	0.630
	Median	0.961	0.917	0.874	0.833	0.792	0.755	0.719
	Upper 95%	1.005	0.984	0.952	0.922	0.889	0.852	0.817
850	Lower 95%	0.917	0.850	0.796	0.746	0.699	0.650	0.615
	Median	0.960	0.910	0.866	0.821	0.781	0.741	0.705
	Upper 95%	1.004	0.981	0.938	0.904	0.868	0.835	0.803
900	Lower 95%	0.912	0.842	0.786	0.731	0.690	0.645	0.603
	Median	0.958	0.907	0.858	0.813	0.770	0.728	0.690
	Upper 95%	1.005	0.973	0.940	0.897	0.863	0.823	0.788
950	Lower 95%	0.911	0.838	0.774	0.721	0.673	0.632	0.588
	Median	0.956	0.902	0.853	0.807	0.758	0.716	0.676
	Upper 95%	0.999	0.964	0.929	0.886	0.853	0.814	0.783
1000	Lower 95%	0.909	0.838	0.781	0.726	0.672	0.629	0.584
	Median	0.952	0.897	0.845	0.794	0.746	0.703	0.662
	Upper 95%	0.998	0.966	0.920	0.878	0.833	0.799	0.759
1050	Lower 95%	0.905	0.832	0.764	0.706	0.655	0.609	0.567
	Median	0.950	0.892	0.838	0.785	0.737	0.692	0.650
	Upper 95%	0.995	0.959	0.914	0.872	0.822	0.776	0.737
1100	Lower 95%	0.903	0.825	0.760	0.697	0.642	0.593	0.553
	Median	0.948	0.886	0.828	0.774	0.723	0.678	0.634
	Upper 95%	0.993	0.954	0.909	0.861	0.814	0.764	0.724
1150	Lower 95%	0.900	0.821	0.759	0.697	0.643	0.591	0.545
	Median	0.945	0.882	0.824	0.766	0.716	0.666	0.620
	Upper 95%	0.994	0.951	0.901	0.851	0.798	0.760	0.712
1200	Lower 95%	0.899	0.818	0.750	0.685	0.630	0.581	0.536

	Counterfactual of population size at 5 year intervals							
Additional adult mortality	Estimate	yr.5	yr.10	yr.15	yr.20	yr.25	yr.30	yr.35
	Median	0.943	0.877	0.814	0.757	0.703	0.653	0.607
	Upper 95%	0.991	0.942	0.884	0.835	0.782	0.737	0.690
	Lower 95%	0.897	0.811	0.738	0.673	0.616	0.573	0.521
1250	Median	0.941	0.873	0.809	0.750	0.693	0.644	0.597
	Upper 95%	0.987	0.936	0.883	0.827	0.771	0.722	0.676
	Lower 95%	0.893	0.807	0.736	0.668	0.610	0.559	0.511
1300	Median	0.938	0.869	0.804	0.739	0.683	0.632	0.584
	Upper 95%	0.985	0.936	0.876	0.821	0.768	0.717	0.671
	Lower 95%	0.891	0.802	0.727	0.662	0.604	0.549	0.499
1350	Median	0.938	0.862	0.795	0.733	0.672	0.620	0.571
	Upper 95%	0.982	0.927	0.867	0.812	0.756	0.703	0.655
	Lower 95%	0.890	0.795	0.717	0.651	0.595	0.538	0.486
1400	Median	0.933	0.857	0.787	0.722	0.662	0.607	0.559
	Upper 95%	0.979	0.916	0.859	0.795	0.736	0.686	0.635
	Lower 95%	0.888	0.798	0.717	0.646	0.586	0.533	0.485
1450	Median	0.933	0.852	0.781	0.715	0.653	0.599	0.548
	Upper 95%	0.980	0.922	0.855	0.793	0.731	0.686	0.627
	Lower 95%	0.885	0.790	0.712	0.642	0.581	0.524	0.471
1500	Median	0.931	0.849	0.776	0.709	0.645	0.589	0.538
	Upper 95%	0.974	0.911	0.848	0.784	0.723	0.669	0.619
	Lower 95%	0.883	0.785	0.709	0.639	0.569	0.513	0.461
1550	Median	0.927	0.842	0.769	0.698	0.634	0.578	0.525
	Upper 95%	0.971	0.907	0.837	0.769	0.710	0.654	0.602
	Lower 95%	0.880	0.781	0.697	0.626	0.559	0.504	0.452
1600	Median	0.926	0.840	0.760	0.691	0.626	0.567	0.512
	Upper 95%							

	Counterfactual of population size at 5 year intervals							
Additional adult mortality	Estimate	yr.5	yr.10	yr.15	yr.20	yr.25	yr.30	yr.35
	Upper 95%	0.968	0.905	0.834	0.767	0.702	0.646	0.596

Table A2_9.3. Guillemot, demographic rate set 1, counterfactuals of population growth rate calculated between year 5 and year 35, using a matched runs method, from 1000 density independent simulations.

Additional adult mortality	Lower 95%	Median	Upper 95%
0	1.000	1.000	1.000
50	0.999	0.999	0.999
100	0.999	0.999	0.999
150	0.998	0.998	0.998
200	0.998	0.998	0.998
250	0.997	0.997	0.997
300	0.996	0.996	0.996
350	0.996	0.996	0.996
400	0.995	0.995	0.995
450	0.995	0.995	0.995
500	0.994	0.994	0.994
550	0.993	0.993	0.993
600	0.993	0.993	0.993
650	0.992	0.992	0.992
700	0.992	0.992	0.992
750	0.991	0.991	0.991
800	0.990	0.990	0.990
850	0.990	0.990	0.990
900	0.989	0.989	0.989
950	0.989	0.989	0.989
1000	0.988	0.988	0.988
1050	0.987	0.987	0.987
1100	0.987	0.987	0.987
1150	0.986	0.986	0.986

Additional adult mortality	Lower 95%	Median	Upper 95%
1200	0.986	0.986	0.986
1250	0.985	0.985	0.985
1300	0.984	0.984	0.984
1350	0.984	0.984	0.984
1400	0.983	0.983	0.983
1450	0.983	0.983	0.983
1500	0.982	0.982	0.982
1550	0.981	0.981	0.981
1600	0.981	0.981	0.981

Table A2_9.4. Guillemot, demographic rate set 1, counterfactuals of population growth rate calculated between year 5 and year 35, using a non-matched runs method, from 1000 density independent simulations.

Additional adult mortality	Lower 95%	Median	Upper 95%
0	1.000	1.000	1.000
50	0.995	0.999	1.003
100	0.995	0.999	1.003
150	0.994	0.998	1.002
200	0.993	0.997	1.002
250	0.993	0.997	1.001
300	0.992	0.996	1.001
350	0.992	0.996	1.000
400	0.991	0.995	0.999
450	0.990	0.995	0.999
500	0.990	0.994	0.998
550	0.989	0.993	0.997
600	0.989	0.993	0.997
650	0.988	0.992	0.996
700	0.988	0.992	0.996
750	0.987	0.991	0.995
800	0.986	0.990	0.994
850	0.985	0.990	0.994
900	0.985	0.989	0.993
950	0.984	0.989	0.993
1000	0.984	0.988	0.992
1050	0.983	0.987	0.991
1100	0.982	0.987	0.991
1150	0.982	0.986	0.990

Additional adult mortality	Lower 95%	Median	Upper 95%
1200	0.982	0.985	0.990
1250	0.981	0.985	0.989
1300	0.980	0.984	0.989
1350	0.980	0.984	0.988
1400	0.979	0.983	0.987
1450	0.979	0.982	0.987
1500	0.978	0.982	0.986
1550	0.977	0.981	0.985
1600	0.977	0.981	0.985

Table A2_10.1. Guillemot, demographic rate set 1, counterfactuals of population size after 5 to 35 years, estimated using a matched runs method, from 1000 density dependent simulations.

Additional adult mortality	Counterfactual of population size at 5 year intervals							
	Estimate	yr.5	yr.10	yr.15	yr.20	yr.25	yr.30	yr.35
0	Lower 95%	1.000	1.000	1.000	1.000	1.000	1.000	1.000
	Median	1.000	1.000	1.000	1.000	1.000	1.000	1.000
	Upper 95%	1.000	1.000	1.000	1.000	1.000	1.000	1.000
50	Lower 95%	0.998	0.996	0.994	0.993	0.992	0.992	0.991
	Median	0.998	0.996	0.994	0.993	0.992	0.992	0.991
	Upper 95%	0.998	0.996	0.995	0.993	0.993	0.992	0.991
100	Lower 95%	0.996	0.992	0.989	0.986	0.985	0.983	0.982
	Median	0.996	0.992	0.989	0.987	0.985	0.983	0.982
	Upper 95%	0.996	0.992	0.989	0.987	0.985	0.984	0.983
150	Lower 95%	0.994	0.988	0.983	0.980	0.977	0.975	0.973
	Median	0.994	0.988	0.983	0.980	0.977	0.975	0.974
	Upper 95%	0.994	0.988	0.984	0.980	0.978	0.976	0.974
200	Lower 95%	0.992	0.984	0.978	0.973	0.969	0.967	0.964
	Median	0.992	0.984	0.978	0.973	0.970	0.967	0.965
	Upper 95%	0.992	0.984	0.978	0.974	0.970	0.968	0.966
250	Lower 95%	0.990	0.980	0.972	0.966	0.962	0.958	0.956
	Median	0.990	0.980	0.972	0.967	0.962	0.959	0.956
	Upper 95%	0.990	0.980	0.973	0.967	0.963	0.960	0.957
300	Lower 95%	0.988	0.976	0.967	0.960	0.954	0.950	0.947
	Median	0.988	0.976	0.967	0.960	0.955	0.951	0.948
	Upper 95%	0.988	0.976	0.967	0.961	0.956	0.952	0.948
350	Lower 95%	0.985	0.972	0.961	0.953	0.947	0.942	0.938
	Median	0.986	0.972	0.962	0.954	0.947	0.943	0.939

	Counterfactual of population size at 5 year intervals							
Additional adult mortality	Estimate	yr.5	yr.10	yr.15	yr.20	yr.25	yr.30	yr.35
	Upper 95%	0.986	0.972	0.962	0.954	0.948	0.944	0.940
400	Lower 95%	0.983	0.968	0.956	0.946	0.939	0.934	0.929
	Median	0.984	0.968	0.956	0.947	0.940	0.935	0.931
	Upper 95%	0.984	0.968	0.957	0.948	0.941	0.936	0.932
450	Lower 95%	0.981	0.964	0.950	0.940	0.932	0.926	0.921
	Median	0.982	0.964	0.951	0.941	0.933	0.927	0.922
	Upper 95%	0.982	0.965	0.951	0.941	0.934	0.928	0.923
500	Lower 95%	0.979	0.960	0.945	0.933	0.924	0.917	0.912
	Median	0.980	0.960	0.945	0.934	0.925	0.919	0.914
	Upper 95%	0.980	0.961	0.946	0.935	0.927	0.920	0.915
550	Lower 95%	0.977	0.956	0.939	0.927	0.917	0.909	0.904
	Median	0.978	0.956	0.940	0.928	0.918	0.911	0.905
	Upper 95%	0.978	0.957	0.941	0.929	0.919	0.912	0.907
600	Lower 95%	0.975	0.952	0.934	0.920	0.909	0.901	0.895
	Median	0.975	0.952	0.935	0.921	0.911	0.903	0.897
	Upper 95%	0.976	0.953	0.936	0.922	0.912	0.904	0.898
650	Lower 95%	0.973	0.948	0.928	0.914	0.902	0.893	0.887
	Median	0.973	0.948	0.929	0.915	0.904	0.895	0.888
	Upper 95%	0.974	0.949	0.930	0.916	0.905	0.897	0.890
700	Lower 95%	0.971	0.944	0.923	0.907	0.895	0.886	0.878
	Median	0.971	0.945	0.924	0.908	0.896	0.887	0.880
	Upper 95%	0.972	0.945	0.925	0.910	0.898	0.889	0.882
750	Lower 95%	0.969	0.940	0.918	0.901	0.888	0.878	0.870
	Median	0.969	0.941	0.919	0.902	0.889	0.879	0.872
	Upper 95%	0.970	0.941	0.920	0.903	0.891	0.881	0.874

	Counterfactual of population size at 5 year intervals							
Additional adult mortality	Estimate	yr.5	yr.10	yr.15	yr.20	yr.25	yr.30	yr.35
800	Lower 95%	0.967	0.936	0.912	0.894	0.880	0.870	0.861
	Median	0.967	0.937	0.914	0.896	0.882	0.872	0.863
	Upper 95%	0.968	0.937	0.915	0.897	0.884	0.874	0.866
850	Lower 95%	0.965	0.932	0.907	0.888	0.873	0.862	0.853
	Median	0.965	0.933	0.908	0.889	0.875	0.864	0.855
	Upper 95%	0.966	0.934	0.909	0.891	0.877	0.866	0.857
900	Lower 95%	0.963	0.928	0.902	0.882	0.866	0.854	0.845
	Median	0.963	0.929	0.903	0.883	0.868	0.856	0.847
	Upper 95%	0.964	0.930	0.904	0.885	0.870	0.858	0.850
950	Lower 95%	0.961	0.924	0.896	0.875	0.859	0.846	0.836
	Median	0.961	0.925	0.898	0.877	0.861	0.848	0.839
	Upper 95%	0.962	0.926	0.899	0.879	0.863	0.851	0.841
1000	Lower 95%	0.959	0.920	0.891	0.869	0.852	0.838	0.828
	Median	0.959	0.921	0.893	0.871	0.854	0.841	0.831
	Upper 95%	0.960	0.922	0.894	0.872	0.856	0.843	0.833
1050	Lower 95%	0.957	0.916	0.886	0.863	0.845	0.831	0.820
	Median	0.957	0.918	0.887	0.864	0.847	0.833	0.823
	Upper 95%	0.958	0.918	0.889	0.866	0.849	0.836	0.825
1100	Lower 95%	0.955	0.913	0.881	0.856	0.838	0.823	0.812
	Median	0.955	0.914	0.882	0.858	0.840	0.826	0.815
	Upper 95%	0.956	0.915	0.884	0.860	0.842	0.828	0.817
1150	Lower 95%	0.953	0.909	0.876	0.850	0.831	0.815	0.804
	Median	0.953	0.910	0.877	0.852	0.833	0.818	0.807
	Upper 95%	0.954	0.911	0.879	0.854	0.835	0.821	0.810
1200	Lower 95%	0.951	0.905	0.870	0.844	0.824	0.808	0.795

	Counterfactual of population size at 5 year intervals							
Additional adult mortality	Estimate	yr.5	yr.10	yr.15	yr.20	yr.25	yr.30	yr.35
	Median	0.951	0.906	0.872	0.846	0.826	0.811	0.799
	Upper 95%	0.952	0.907	0.874	0.848	0.829	0.813	0.802
	Lower 95%	0.949	0.901	0.865	0.838	0.817	0.800	0.788
1250	Median	0.949	0.902	0.867	0.840	0.819	0.803	0.791
	Upper 95%	0.950	0.904	0.869	0.842	0.822	0.806	0.794
	Lower 95%	0.947	0.897	0.860	0.831	0.810	0.792	0.779
1300	Median	0.947	0.899	0.862	0.834	0.812	0.796	0.783
	Upper 95%	0.948	0.900	0.863	0.836	0.815	0.799	0.786
	Lower 95%	0.945	0.893	0.855	0.826	0.803	0.785	0.772
1350	Median	0.945	0.895	0.857	0.828	0.805	0.788	0.775
	Upper 95%	0.946	0.896	0.858	0.830	0.808	0.791	0.778
	Lower 95%	0.943	0.890	0.850	0.819	0.796	0.778	0.763
1400	Median	0.943	0.891	0.852	0.822	0.799	0.781	0.767
	Upper 95%	0.944	0.892	0.853	0.824	0.801	0.784	0.770
	Lower 95%	0.941	0.886	0.845	0.813	0.789	0.770	0.755
1450	Median	0.941	0.887	0.847	0.816	0.792	0.773	0.759
	Upper 95%	0.942	0.889	0.848	0.818	0.795	0.777	0.762
	Lower 95%	0.939	0.882	0.840	0.807	0.782	0.763	0.747
1500	Median	0.939	0.883	0.842	0.810	0.785	0.766	0.751
	Upper 95%	0.940	0.885	0.843	0.812	0.788	0.769	0.755
	Lower 95%	0.937	0.878	0.835	0.801	0.775	0.755	0.740
1550	Median	0.937	0.880	0.837	0.804	0.779	0.759	0.744
	Upper 95%	0.938	0.881	0.839	0.806	0.781	0.762	0.747
	Lower 95%	0.935	0.875	0.829	0.795	0.769	0.748	0.732
1600	Median	0.935	0.876	0.831	0.798	0.772	0.751	0.736
	Upper 95%							

	Counterfactual of population size at 5 year intervals							
Additional adult mortality	Estimate	yr.5	yr.10	yr.15	yr.20	yr.25	yr.30	yr.35
	Upper 95%	0.936	0.877	0.833	0.800	0.775	0.755	0.740

Table A2_10.2. Guillemot, demographic rate set 1, counterfactuals of population size after 5 to 35 years, estimated using a non-matched runs method, from 1000 density dependent simulations.

Additional adult mortality	Counterfactual of population size at 5 year intervals							
	Estimate	yr.5	yr.10	yr.15	yr.20	yr.25	yr.30	yr.35
0	Lower 95%	1.000	1.000	1.000	1.000	1.000	1.000	1.000
	Median	1.000	1.000	1.000	1.000	1.000	1.000	1.000
	Upper 95%	1.000	1.000	1.000	1.000	1.000	1.000	1.000
50	Lower 95%	0.952	0.939	0.932	0.926	0.923	0.927	0.921
	Median	0.998	0.995	0.994	0.994	0.993	0.992	0.991
	Upper 95%	1.041	1.055	1.064	1.066	1.069	1.068	1.068
100	Lower 95%	0.949	0.936	0.928	0.920	0.918	0.915	0.915
	Median	0.996	0.992	0.988	0.986	0.984	0.982	0.982
	Upper 95%	1.044	1.053	1.061	1.062	1.062	1.058	1.058
150	Lower 95%	0.950	0.933	0.922	0.915	0.909	0.906	0.906
	Median	0.994	0.987	0.984	0.979	0.976	0.977	0.976
	Upper 95%	1.041	1.053	1.051	1.060	1.055	1.056	1.058
200	Lower 95%	0.948	0.933	0.920	0.906	0.904	0.905	0.898
	Median	0.991	0.985	0.980	0.975	0.971	0.969	0.965
	Upper 95%	1.038	1.043	1.045	1.047	1.047	1.046	1.042
250	Lower 95%	0.947	0.928	0.913	0.899	0.894	0.894	0.890
	Median	0.990	0.980	0.973	0.968	0.964	0.960	0.957
	Upper 95%	1.035	1.039	1.044	1.045	1.032	1.031	1.028
300	Lower 95%	0.942	0.920	0.906	0.895	0.888	0.888	0.883
	Median	0.986	0.976	0.967	0.962	0.957	0.951	0.948
	Upper 95%	1.033	1.036	1.034	1.034	1.027	1.020	1.023
350	Lower 95%	0.941	0.916	0.904	0.889	0.882	0.874	0.870
	Median	0.985	0.971	0.960	0.954	0.947	0.943	0.940

	Counterfactual of population size at 5 year intervals							
Additional adult mortality	Estimate	yr.5	yr.10	yr.15	yr.20	yr.25	yr.30	yr.35
	Upper 95%	1.029	1.032	1.028	1.024	1.019	1.020	1.017
400	Lower 95%	0.937	0.913	0.896	0.880	0.871	0.869	0.866
	Median	0.984	0.967	0.956	0.948	0.942	0.936	0.933
	Upper 95%	1.028	1.030	1.023	1.015	1.015	1.009	1.003
450	Lower 95%	0.935	0.905	0.888	0.879	0.869	0.863	0.855
	Median	0.981	0.964	0.950	0.942	0.933	0.927	0.921
	Upper 95%	1.024	1.018	1.015	1.014	1.006	0.998	0.994
500	Lower 95%	0.935	0.905	0.887	0.874	0.863	0.850	0.849
	Median	0.980	0.959	0.944	0.933	0.926	0.919	0.912
	Upper 95%	1.024	1.016	1.005	1.003	0.994	0.991	0.980
550	Lower 95%	0.933	0.908	0.883	0.869	0.854	0.847	0.841
	Median	0.977	0.955	0.939	0.928	0.919	0.911	0.905
	Upper 95%	1.023	1.011	1.001	0.994	0.986	0.982	0.970
600	Lower 95%	0.933	0.901	0.878	0.856	0.842	0.839	0.837
	Median	0.975	0.953	0.937	0.922	0.914	0.903	0.897
	Upper 95%	1.023	1.008	0.998	0.991	0.982	0.978	0.973
650	Lower 95%	0.930	0.899	0.877	0.851	0.840	0.830	0.828
	Median	0.975	0.948	0.930	0.916	0.904	0.897	0.888
	Upper 95%	1.017	1.006	0.991	0.985	0.972	0.967	0.956
700	Lower 95%	0.929	0.892	0.870	0.850	0.836	0.826	0.819
	Median	0.972	0.945	0.925	0.910	0.899	0.889	0.881
	Upper 95%	1.016	1.003	0.988	0.980	0.966	0.957	0.948
750	Lower 95%	0.928	0.890	0.862	0.840	0.826	0.820	0.814
	Median	0.969	0.941	0.919	0.904	0.890	0.880	0.872
	Upper 95%	1.015	1.000	0.987	0.967	0.956	0.948	0.938

	Counterfactual of population size at 5 year intervals							
Additional adult mortality	Estimate	yr.5	yr.10	yr.15	yr.20	yr.25	yr.30	yr.35
800	Lower 95%	0.923	0.885	0.860	0.836	0.820	0.810	0.803
	Median	0.966	0.935	0.912	0.894	0.881	0.871	0.865
	Upper 95%	1.014	0.993	0.976	0.964	0.947	0.939	0.929
850	Lower 95%	0.922	0.882	0.852	0.830	0.814	0.804	0.796
	Median	0.965	0.932	0.909	0.889	0.875	0.864	0.855
	Upper 95%	1.011	0.993	0.973	0.959	0.939	0.930	0.921
900	Lower 95%	0.921	0.878	0.848	0.824	0.810	0.797	0.785
	Median	0.963	0.929	0.904	0.883	0.869	0.857	0.847
	Upper 95%	1.008	0.989	0.967	0.951	0.934	0.922	0.915
950	Lower 95%	0.917	0.873	0.841	0.817	0.802	0.788	0.783
	Median	0.961	0.925	0.897	0.877	0.862	0.849	0.838
	Upper 95%	1.006	0.982	0.964	0.944	0.926	0.918	0.904
1000	Lower 95%	0.914	0.869	0.838	0.810	0.792	0.783	0.772
	Median	0.959	0.921	0.891	0.868	0.855	0.841	0.830
	Upper 95%	1.005	0.979	0.950	0.931	0.918	0.908	0.894
1050	Lower 95%	0.917	0.867	0.834	0.809	0.787	0.773	0.766
	Median	0.956	0.919	0.887	0.865	0.849	0.835	0.823
	Upper 95%	0.998	0.974	0.950	0.926	0.912	0.901	0.887
1100	Lower 95%	0.912	0.866	0.830	0.798	0.781	0.768	0.763
	Median	0.954	0.913	0.882	0.859	0.839	0.825	0.814
	Upper 95%	1.001	0.967	0.938	0.919	0.899	0.890	0.877
1150	Lower 95%	0.909	0.860	0.822	0.794	0.776	0.760	0.750
	Median	0.953	0.909	0.877	0.852	0.833	0.819	0.807
	Upper 95%	1.000	0.966	0.935	0.916	0.897	0.883	0.871
1200	Lower 95%	0.910	0.857	0.815	0.788	0.764	0.749	0.740

	Counterfactual of population size at 5 year intervals							
Additional adult mortality	Estimate	yr.5	yr.10	yr.15	yr.20	yr.25	yr.30	yr.35
	Median	0.950	0.906	0.871	0.847	0.827	0.811	0.800
	Upper 95%	0.997	0.964	0.930	0.911	0.888	0.875	0.864
	Lower 95%	0.908	0.854	0.812	0.780	0.760	0.750	0.734
1250	Median	0.949	0.902	0.868	0.842	0.820	0.803	0.791
	Upper 95%	0.994	0.960	0.929	0.903	0.881	0.868	0.852
	Lower 95%	0.902	0.849	0.806	0.773	0.752	0.736	0.726
1300	Median	0.947	0.899	0.861	0.833	0.814	0.796	0.783
	Upper 95%	0.989	0.957	0.922	0.897	0.873	0.858	0.842
	Lower 95%	0.906	0.846	0.804	0.773	0.747	0.730	0.721
1350	Median	0.944	0.894	0.858	0.828	0.807	0.788	0.774
	Upper 95%	0.990	0.951	0.919	0.891	0.875	0.855	0.834
	Lower 95%	0.904	0.843	0.800	0.767	0.741	0.725	0.710
1400	Median	0.943	0.890	0.851	0.823	0.800	0.782	0.768
	Upper 95%	0.985	0.949	0.916	0.889	0.862	0.841	0.826
	Lower 95%	0.900	0.840	0.796	0.761	0.734	0.718	0.706
1450	Median	0.940	0.887	0.846	0.815	0.792	0.774	0.759
	Upper 95%	0.984	0.941	0.903	0.874	0.850	0.833	0.817
	Lower 95%	0.899	0.835	0.792	0.756	0.732	0.712	0.698
1500	Median	0.940	0.883	0.841	0.811	0.787	0.767	0.751
	Upper 95%	0.982	0.934	0.900	0.874	0.845	0.825	0.807
	Lower 95%	0.893	0.829	0.782	0.749	0.723	0.707	0.691
1550	Median	0.937	0.880	0.836	0.804	0.778	0.757	0.743
	Upper 95%	0.981	0.931	0.892	0.861	0.839	0.824	0.801
	Lower 95%	0.895	0.828	0.779	0.747	0.722	0.704	0.689
1600	Median	0.935	0.875	0.833	0.798	0.772	0.753	0.737
	Upper 95%							

	Counterfactual of population size at 5 year intervals							
Additional adult mortality	Estimate	yr.5	yr.10	yr.15	yr.20	yr.25	yr.30	yr.35
	Upper 95%	0.978	0.929	0.890	0.853	0.828	0.811	0.791

Table A2_10.3. Guillemot, demographic rate set 1, counterfactuals of population growth rate calculated between year 5 and year 35, using a matched runs method, from 1000 density dependent simulations.

Additional adult mortality	Lower 95%	Median	Upper 95%
0	1.000	1.000	1.000
50	1.000	1.000	1.000
100	1.000	1.000	1.000
150	0.999	0.999	0.999
200	0.999	0.999	0.999
250	0.999	0.999	0.999
300	0.999	0.999	0.999
350	0.998	0.998	0.998
400	0.998	0.998	0.998
450	0.998	0.998	0.998
500	0.998	0.998	0.998
550	0.997	0.997	0.997
600	0.997	0.997	0.997
650	0.997	0.997	0.997
700	0.997	0.997	0.997
750	0.996	0.996	0.997
800	0.996	0.996	0.996
850	0.996	0.996	0.996
900	0.996	0.996	0.996
950	0.995	0.995	0.996
1000	0.995	0.995	0.995
1050	0.995	0.995	0.995
1100	0.995	0.995	0.995
1150	0.994	0.994	0.995

Additional adult mortality	Lower 95%	Median	Upper 95%
1200	0.994	0.994	0.994
1250	0.994	0.994	0.994
1300	0.994	0.994	0.994
1350	0.993	0.993	0.994
1400	0.993	0.993	0.993
1450	0.993	0.993	0.993
1500	0.992	0.993	0.993
1550	0.992	0.992	0.992
1600	0.992	0.992	0.992

Table A2_10.4. Guillemot, demographic rate set 1, counterfactuals of population growth rate calculated between year 5 and year 35, using a non-matched runs method, from 1000 density dependent simulations.

Additional adult mortality	Lower 95%	Median	Upper 95%
0	1.000	1.000	1.000
50	0.997	1.000	1.003
100	0.997	1.000	1.002
150	0.997	0.999	1.002
200	0.996	0.999	1.002
250	0.996	0.999	1.001
300	0.996	0.999	1.001
350	0.996	0.998	1.001
400	0.996	0.998	1.001
450	0.995	0.998	1.001
500	0.995	0.998	1.000
550	0.995	0.997	1.000
600	0.995	0.997	1.000
650	0.994	0.997	1.000
700	0.994	0.997	1.000
750	0.994	0.996	0.999
800	0.994	0.996	0.999
850	0.993	0.996	0.999
900	0.993	0.996	0.998
950	0.993	0.995	0.998
1000	0.993	0.995	0.998
1050	0.992	0.995	0.998
1100	0.992	0.995	0.997
1150	0.992	0.994	0.997

Additional adult mortality	Lower 95%	Median	Upper 95%
1200	0.992	0.994	0.997
1250	0.991	0.994	0.997
1300	0.991	0.994	0.997
1350	0.991	0.993	0.996
1400	0.990	0.993	0.996
1450	0.990	0.993	0.996
1500	0.990	0.993	0.995
1550	0.990	0.992	0.995
1600	0.989	0.992	0.995

Table A2_11.1. Guillemot, demographic rate set 2, counterfactuals of population size after 5 to 35 years, estimated using a matched runs method, from 1000 density independent simulations.

Additional adult mortality	Counterfactual of population size at 5 year intervals							
	Estimate	yr.5	yr.10	yr.15	yr.20	yr.25	yr.30	yr.35
0	Lower 95%	1.000	1.000	1.000	1.000	1.000	1.000	1.000
	Median	1.000	1.000	1.000	1.000	1.000	1.000	1.000
	Upper 95%	1.000	1.000	1.000	1.000	1.000	1.000	1.000
50	Lower 95%	0.998	0.995	0.992	0.989	0.986	0.983	0.980
	Median	0.998	0.995	0.992	0.989	0.986	0.983	0.980
	Upper 95%	0.998	0.995	0.992	0.989	0.986	0.983	0.980
100	Lower 95%	0.995	0.989	0.983	0.977	0.971	0.966	0.960
	Median	0.995	0.989	0.983	0.977	0.972	0.966	0.960
	Upper 95%	0.995	0.989	0.983	0.978	0.972	0.966	0.960
150	Lower 95%	0.993	0.984	0.975	0.966	0.957	0.949	0.940
	Median	0.993	0.984	0.975	0.966	0.958	0.949	0.940
	Upper 95%	0.993	0.984	0.975	0.966	0.958	0.949	0.941
200	Lower 95%	0.990	0.978	0.967	0.955	0.944	0.932	0.921
	Median	0.990	0.979	0.967	0.955	0.944	0.933	0.921
	Upper 95%	0.991	0.979	0.967	0.955	0.944	0.933	0.922
250	Lower 95%	0.988	0.973	0.959	0.944	0.930	0.916	0.902
	Median	0.988	0.973	0.959	0.944	0.930	0.916	0.903
	Upper 95%	0.988	0.973	0.959	0.945	0.931	0.917	0.903
300	Lower 95%	0.986	0.968	0.950	0.933	0.917	0.900	0.884
	Median	0.986	0.968	0.951	0.934	0.917	0.901	0.884
	Upper 95%	0.986	0.968	0.951	0.934	0.917	0.901	0.885
350	Lower 95%	0.983	0.963	0.942	0.923	0.903	0.885	0.866
	Median	0.983	0.963	0.943	0.923	0.904	0.885	0.866

	Counterfactual of population size at 5 year intervals							
Additional adult mortality	Estimate	yr.5	yr.10	yr.15	yr.20	yr.25	yr.30	yr.35
	Upper 95%	0.983	0.963	0.943	0.923	0.904	0.885	0.867
400	Lower 95%	0.981	0.957	0.934	0.912	0.890	0.869	0.848
	Median	0.981	0.958	0.935	0.913	0.891	0.870	0.849
	Upper 95%	0.981	0.958	0.935	0.913	0.891	0.870	0.849
450	Lower 95%	0.978	0.952	0.927	0.902	0.878	0.854	0.831
	Median	0.979	0.952	0.927	0.902	0.878	0.854	0.832
	Upper 95%	0.979	0.953	0.927	0.902	0.878	0.855	0.832
500	Lower 95%	0.976	0.947	0.919	0.891	0.865	0.839	0.814
	Median	0.976	0.947	0.919	0.892	0.865	0.840	0.815
	Upper 95%	0.976	0.947	0.919	0.892	0.866	0.840	0.815
550	Lower 95%	0.974	0.942	0.911	0.881	0.852	0.824	0.798
	Median	0.974	0.942	0.911	0.882	0.853	0.825	0.798
	Upper 95%	0.974	0.942	0.912	0.882	0.853	0.826	0.799
600	Lower 95%	0.971	0.937	0.903	0.871	0.840	0.810	0.781
	Median	0.971	0.937	0.904	0.872	0.841	0.811	0.782
	Upper 95%	0.972	0.937	0.904	0.872	0.841	0.811	0.782
650	Lower 95%	0.969	0.931	0.896	0.861	0.828	0.796	0.765
	Median	0.969	0.932	0.896	0.862	0.828	0.797	0.766
	Upper 95%	0.969	0.932	0.896	0.862	0.829	0.797	0.767
700	Lower 95%	0.966	0.926	0.888	0.851	0.816	0.782	0.750
	Median	0.967	0.927	0.888	0.852	0.816	0.783	0.750
	Upper 95%	0.967	0.927	0.889	0.852	0.817	0.783	0.751
750	Lower 95%	0.964	0.921	0.880	0.841	0.804	0.768	0.734
	Median	0.964	0.922	0.881	0.842	0.805	0.769	0.735
	Upper 95%	0.965	0.922	0.881	0.843	0.805	0.770	0.736

	Counterfactual of population size at 5 year intervals							
Additional adult mortality	Estimate	yr.5	yr.10	yr.15	yr.20	yr.25	yr.30	yr.35
800	Lower 95%	0.962	0.916	0.873	0.832	0.792	0.755	0.719
	Median	0.962	0.917	0.873	0.832	0.793	0.756	0.720
	Upper 95%	0.962	0.917	0.874	0.833	0.794	0.756	0.721
850	Lower 95%	0.959	0.911	0.865	0.822	0.781	0.742	0.705
	Median	0.960	0.912	0.866	0.823	0.782	0.742	0.705
	Upper 95%	0.960	0.912	0.867	0.823	0.782	0.743	0.706
900	Lower 95%	0.957	0.906	0.858	0.813	0.770	0.729	0.690
	Median	0.957	0.907	0.859	0.813	0.770	0.730	0.691
	Upper 95%	0.958	0.907	0.859	0.814	0.771	0.730	0.692
950	Lower 95%	0.955	0.901	0.851	0.803	0.758	0.716	0.676
	Median	0.955	0.902	0.851	0.804	0.759	0.717	0.677
	Upper 95%	0.956	0.902	0.852	0.805	0.760	0.718	0.678
1000	Lower 95%	0.952	0.896	0.844	0.794	0.747	0.703	0.662
	Median	0.953	0.897	0.844	0.795	0.748	0.704	0.663
	Upper 95%	0.953	0.897	0.845	0.795	0.749	0.705	0.664
1050	Lower 95%	0.950	0.891	0.836	0.785	0.737	0.691	0.649
	Median	0.950	0.892	0.837	0.786	0.737	0.692	0.649
	Upper 95%	0.951	0.893	0.838	0.786	0.738	0.693	0.650
1100	Lower 95%	0.948	0.886	0.829	0.776	0.726	0.679	0.635
	Median	0.948	0.887	0.830	0.777	0.727	0.680	0.636
	Upper 95%	0.949	0.888	0.831	0.777	0.727	0.681	0.637
1150	Lower 95%	0.945	0.882	0.822	0.767	0.715	0.667	0.622
	Median	0.946	0.882	0.823	0.768	0.716	0.668	0.623
	Upper 95%	0.946	0.883	0.824	0.768	0.717	0.669	0.624
1200	Lower 95%	0.943	0.877	0.815	0.758	0.705	0.655	0.609

	Counterfactual of population size at 5 year intervals							
Additional adult mortality	Estimate	yr.5	yr.10	yr.15	yr.20	yr.25	yr.30	yr.35
	Median	0.944	0.877	0.816	0.759	0.706	0.656	0.610
	Upper 95%	0.944	0.878	0.817	0.760	0.707	0.657	0.611
	Lower 95%	0.941	0.872	0.808	0.749	0.695	0.644	0.597
1250	Median	0.941	0.873	0.809	0.750	0.695	0.645	0.598
	Upper 95%	0.942	0.873	0.810	0.751	0.696	0.646	0.599
	Lower 95%	0.938	0.867	0.801	0.740	0.684	0.632	0.584
1300	Median	0.939	0.868	0.802	0.741	0.685	0.633	0.585
	Upper 95%	0.939	0.869	0.803	0.742	0.686	0.634	0.586
	Lower 95%	0.936	0.862	0.794	0.732	0.674	0.621	0.572
1350	Median	0.937	0.863	0.795	0.733	0.675	0.622	0.573
	Upper 95%	0.937	0.864	0.796	0.734	0.676	0.623	0.574
	Lower 95%	0.934	0.858	0.788	0.723	0.664	0.610	0.561
1400	Median	0.934	0.858	0.789	0.724	0.665	0.611	0.562
	Upper 95%	0.935	0.859	0.789	0.725	0.666	0.612	0.563
	Lower 95%	0.931	0.853	0.781	0.715	0.655	0.600	0.549
1450	Median	0.932	0.854	0.782	0.716	0.656	0.601	0.550
	Upper 95%	0.933	0.855	0.783	0.717	0.657	0.602	0.551
	Lower 95%	0.929	0.848	0.774	0.707	0.645	0.589	0.538
1500	Median	0.930	0.849	0.775	0.708	0.646	0.590	0.539
	Upper 95%	0.930	0.850	0.776	0.709	0.647	0.591	0.540
	Lower 95%	0.927	0.843	0.768	0.699	0.636	0.579	0.527
1550	Median	0.928	0.844	0.769	0.700	0.637	0.580	0.528
	Upper 95%	0.928	0.845	0.769	0.701	0.638	0.581	0.529
	Lower 95%	0.925	0.839	0.761	0.690	0.626	0.568	0.516
1600	Median	0.925	0.840	0.762	0.691	0.628	0.569	0.517
	Upper 95%							

Counterfactual of population size at 5 year intervals								
Additional adult mortality	Estimate	yr.5	yr.10	yr.15	yr.20	yr.25	yr.30	yr.35
	Upper 95%	0.926	0.841	0.763	0.693	0.629	0.571	0.518

Table A2_11.2. Guillemot, demographic rate set 2, counterfactuals of population size after 5 to 35 years, estimated using a non-matched runs method, from 1000 density independent simulations.

Additional adult mortality	Counterfactual of population size at 5 year intervals							
	Estimate	yr.5	yr.10	yr.15	yr.20	yr.25	yr.30	yr.35
0	Lower 95%	1.000	1.000	1.000	1.000	1.000	1.000	1.000
	Median	1.000	1.000	1.000	1.000	1.000	1.000	1.000
	Upper 95%	1.000	1.000	1.000	1.000	1.000	1.000	1.000
50	Lower 95%	0.936	0.899	0.880	0.858	0.846	0.838	0.818
	Median	0.998	0.992	0.990	0.986	0.982	0.979	0.973
	Upper 95%	1.065	1.087	1.106	1.136	1.154	1.155	1.168
100	Lower 95%	0.934	0.897	0.875	0.851	0.830	0.813	0.792
	Median	0.994	0.988	0.980	0.975	0.972	0.963	0.957
	Upper 95%	1.057	1.087	1.110	1.120	1.130	1.153	1.159
150	Lower 95%	0.928	0.891	0.864	0.837	0.814	0.800	0.781
	Median	0.990	0.981	0.975	0.966	0.954	0.945	0.939
	Upper 95%	1.059	1.085	1.101	1.109	1.126	1.129	1.130
200	Lower 95%	0.930	0.890	0.859	0.835	0.810	0.789	0.768
	Median	0.990	0.977	0.965	0.955	0.946	0.931	0.920
	Upper 95%	1.053	1.072	1.079	1.087	1.088	1.094	1.096
250	Lower 95%	0.926	0.884	0.852	0.827	0.807	0.774	0.760
	Median	0.988	0.970	0.954	0.944	0.931	0.918	0.906
	Upper 95%	1.057	1.067	1.086	1.080	1.088	1.091	1.091
300	Lower 95%	0.923	0.875	0.849	0.820	0.782	0.756	0.731
	Median	0.983	0.965	0.946	0.934	0.921	0.900	0.885
	Upper 95%	1.052	1.062	1.058	1.065	1.064	1.067	1.062
350	Lower 95%	0.925	0.872	0.834	0.800	0.767	0.743	0.721
	Median	0.982	0.961	0.941	0.925	0.904	0.886	0.870

	Counterfactual of population size at 5 year intervals							
Additional adult mortality	Estimate	yr.5	yr.10	yr.15	yr.20	yr.25	yr.30	yr.35
	Upper 95%	1.052	1.054	1.059	1.056	1.051	1.037	1.034
400	Lower 95%	0.921	0.872	0.831	0.791	0.758	0.722	0.702
	Median	0.978	0.954	0.932	0.909	0.889	0.868	0.849
	Upper 95%	1.043	1.047	1.048	1.050	1.034	1.020	1.015
450	Lower 95%	0.921	0.870	0.823	0.781	0.753	0.720	0.693
	Median	0.976	0.949	0.925	0.901	0.875	0.849	0.829
	Upper 95%	1.036	1.045	1.042	1.023	1.016	1.000	0.999
500	Lower 95%	0.920	0.857	0.814	0.781	0.741	0.702	0.670
	Median	0.975	0.945	0.917	0.887	0.860	0.838	0.815
	Upper 95%	1.046	1.041	1.032	1.022	1.015	0.991	0.978
550	Lower 95%	0.913	0.854	0.805	0.762	0.722	0.679	0.649
	Median	0.972	0.935	0.905	0.880	0.849	0.824	0.796
	Upper 95%	1.036	1.032	1.016	1.000	0.988	0.969	0.949
600	Lower 95%	0.913	0.851	0.800	0.761	0.726	0.689	0.654
	Median	0.970	0.935	0.904	0.873	0.842	0.812	0.783
	Upper 95%	1.031	1.026	1.012	1.000	0.983	0.956	0.937
650	Lower 95%	0.908	0.850	0.799	0.764	0.715	0.679	0.644
	Median	0.970	0.928	0.891	0.858	0.823	0.793	0.763
	Upper 95%	1.030	1.028	1.010	0.988	0.964	0.939	0.914
700	Lower 95%	0.906	0.845	0.791	0.734	0.703	0.659	0.616
	Median	0.966	0.922	0.886	0.851	0.816	0.780	0.748
	Upper 95%	1.025	1.019	0.993	0.973	0.948	0.926	0.904
750	Lower 95%	0.907	0.834	0.788	0.739	0.693	0.652	0.622
	Median	0.962	0.920	0.883	0.844	0.806	0.772	0.736
	Upper 95%	1.029	1.014	0.990	0.957	0.940	0.916	0.888

	Counterfactual of population size at 5 year intervals							
Additional adult mortality	Estimate	yr.5	yr.10	yr.15	yr.20	yr.25	yr.30	yr.35
800	Lower 95%	0.900	0.829	0.771	0.719	0.675	0.631	0.594
	Median	0.959	0.912	0.868	0.828	0.789	0.754	0.715
	Upper 95%	1.023	1.004	0.976	0.952	0.925	0.893	0.858
850	Lower 95%	0.901	0.831	0.767	0.718	0.670	0.619	0.582
	Median	0.958	0.906	0.865	0.821	0.780	0.740	0.704
	Upper 95%	1.023	1.003	0.976	0.943	0.915	0.882	0.853
900	Lower 95%	0.899	0.826	0.763	0.713	0.658	0.617	0.571
	Median	0.957	0.905	0.858	0.814	0.771	0.733	0.692
	Upper 95%	1.017	1.000	0.965	0.929	0.890	0.855	0.830
950	Lower 95%	0.897	0.820	0.760	0.704	0.649	0.607	0.561
	Median	0.954	0.901	0.850	0.804	0.757	0.717	0.675
	Upper 95%	1.020	0.997	0.958	0.917	0.878	0.847	0.807
1000	Lower 95%	0.897	0.820	0.750	0.698	0.637	0.594	0.546
	Median	0.953	0.895	0.845	0.795	0.750	0.705	0.663
	Upper 95%	1.017	0.992	0.954	0.913	0.876	0.833	0.793
1050	Lower 95%	0.891	0.811	0.741	0.684	0.633	0.584	0.540
	Median	0.949	0.889	0.835	0.785	0.737	0.694	0.651
	Upper 95%	1.014	0.980	0.944	0.895	0.857	0.825	0.780
1100	Lower 95%	0.894	0.804	0.736	0.671	0.621	0.570	0.523
	Median	0.947	0.884	0.826	0.773	0.722	0.677	0.634
	Upper 95%	1.007	0.974	0.934	0.890	0.843	0.799	0.755
1150	Lower 95%	0.887	0.800	0.733	0.674	0.613	0.558	0.517
	Median	0.944	0.881	0.822	0.765	0.714	0.664	0.623
	Upper 95%	1.003	0.968	0.920	0.876	0.832	0.790	0.744
1200	Lower 95%	0.885	0.793	0.723	0.660	0.601	0.554	0.509

	Counterfactual of population size at 5 year intervals							
Additional adult mortality	Estimate	yr.5	yr.10	yr.15	yr.20	yr.25	yr.30	yr.35
	Median	0.942	0.872	0.812	0.757	0.705	0.655	0.605
	Upper 95%	1.006	0.963	0.911	0.866	0.822	0.766	0.724
	Lower 95%	0.883	0.790	0.715	0.656	0.598	0.547	0.499
1250	Median	0.942	0.870	0.806	0.748	0.693	0.643	0.598
	Upper 95%	1.000	0.952	0.905	0.856	0.807	0.763	0.726
	Lower 95%	0.884	0.788	0.714	0.648	0.587	0.541	0.490
1300	Median	0.936	0.865	0.799	0.740	0.685	0.633	0.586
	Upper 95%	0.996	0.951	0.899	0.850	0.799	0.751	0.703
	Lower 95%	0.881	0.786	0.705	0.639	0.582	0.527	0.477
1350	Median	0.936	0.862	0.792	0.730	0.671	0.621	0.571
	Upper 95%	0.997	0.954	0.898	0.848	0.781	0.732	0.687
	Lower 95%	0.881	0.785	0.704	0.634	0.576	0.514	0.470
1400	Median	0.934	0.856	0.786	0.724	0.663	0.611	0.561
	Upper 95%	0.994	0.947	0.885	0.821	0.772	0.722	0.668
	Lower 95%	0.876	0.776	0.692	0.626	0.567	0.510	0.460
1450	Median	0.931	0.853	0.782	0.716	0.656	0.601	0.551
	Upper 95%	0.994	0.938	0.881	0.821	0.764	0.708	0.659
	Lower 95%	0.874	0.768	0.690	0.623	0.554	0.498	0.452
1500	Median	0.930	0.847	0.775	0.705	0.645	0.588	0.537
	Upper 95%	0.992	0.934	0.877	0.810	0.754	0.701	0.650
	Lower 95%	0.872	0.770	0.682	0.612	0.550	0.490	0.441
1550	Median	0.926	0.843	0.766	0.702	0.636	0.579	0.527
	Upper 95%	0.989	0.934	0.869	0.804	0.748	0.690	0.631
	Lower 95%	0.873	0.762	0.676	0.604	0.543	0.488	0.433
1600	Median	0.924	0.837	0.760	0.690	0.625	0.567	0.516
	Upper 95%							

Counterfactual of population size at 5 year intervals								
Additional adult mortality	Estimate	yr.5	yr.10	yr.15	yr.20	yr.25	yr.30	yr.35
	Upper 95%	0.986	0.924	0.854	0.793	0.728	0.673	0.622

Table A2_11.3. Guillemot, demographic rate set 2, counterfactuals of population growth rate calculated between year 5 and year 35, using a matched runs method, from 1000 density independent simulations.

Additional adult mortality	Lower 95%	Median	Upper 95%
0	1.000	1.000	1.000
50	0.999	0.999	0.999
100	0.999	0.999	0.999
150	0.998	0.998	0.998
200	0.998	0.998	0.998
250	0.997	0.997	0.997
300	0.996	0.996	0.996
350	0.996	0.996	0.996
400	0.995	0.995	0.995
450	0.995	0.995	0.995
500	0.994	0.994	0.994
550	0.993	0.993	0.993
600	0.993	0.993	0.993
650	0.992	0.992	0.992
700	0.992	0.992	0.992
750	0.991	0.991	0.991
800	0.990	0.990	0.990
850	0.990	0.990	0.990
900	0.989	0.989	0.989
950	0.989	0.989	0.989
1000	0.988	0.988	0.988
1050	0.987	0.987	0.987
1100	0.987	0.987	0.987
1150	0.986	0.986	0.986

Additional adult mortality	Lower 95%	Median	Upper 95%
1200	0.986	0.986	0.986
1250	0.985	0.985	0.985
1300	0.984	0.984	0.984
1350	0.984	0.984	0.984
1400	0.983	0.983	0.983
1450	0.983	0.983	0.983
1500	0.982	0.982	0.982
1550	0.981	0.981	0.981
1600	0.981	0.981	0.981

Table A2_11.4. Guillemot, demographic rate set 2, counterfactuals of population growth rate calculated between year 5 and year 35, using a non-matched runs method, from 1000 density independent simulations.

Additional adult mortality	Lower 95%	Median	Upper 95%
0	1.000	1.000	1.000
50	0.994	0.999	1.005
100	0.993	0.999	1.004
150	0.993	0.998	1.004
200	0.992	0.998	1.003
250	0.992	0.997	1.003
300	0.990	0.996	1.002
350	0.990	0.996	1.002
400	0.990	0.995	1.001
450	0.989	0.995	1.000
500	0.988	0.994	0.999
550	0.987	0.993	0.999
600	0.987	0.993	0.998
650	0.987	0.992	0.998
700	0.986	0.992	0.997
750	0.986	0.991	0.997
800	0.985	0.990	0.996
850	0.984	0.990	0.995
900	0.983	0.989	0.995
950	0.983	0.989	0.994
1000	0.982	0.988	0.994
1050	0.982	0.987	0.993
1100	0.981	0.987	0.993
1150	0.980	0.986	0.992

Additional adult mortality	Lower 95%	Median	Upper 95%
1200	0.980	0.985	0.991
1250	0.979	0.985	0.991
1300	0.979	0.984	0.990
1350	0.978	0.984	0.989
1400	0.977	0.983	0.989
1450	0.977	0.983	0.988
1500	0.977	0.982	0.988
1550	0.976	0.982	0.987
1600	0.975	0.981	0.986

Table A2_12.1. Guillemot, demographic rate set 2, counterfactuals of population size after 5 to 35 years, estimated using a matched runs method, from 1000 density dependent simulations.

Additional adult mortality	Counterfactual of population size at 5 year intervals							
	Estimate	yr.5	yr.10	yr.15	yr.20	yr.25	yr.30	yr.35
0	Lower 95%	1.000	1.000	1.000	1.000	1.000	1.000	1.000
	Median	1.000	1.000	1.000	1.000	1.000	1.000	1.000
	Upper 95%	1.000	1.000	1.000	1.000	1.000	1.000	1.000
50	Lower 95%	0.998	0.996	0.994	0.993	0.992	0.991	0.990
	Median	0.998	0.996	0.994	0.993	0.992	0.991	0.991
	Upper 95%	0.998	0.996	0.994	0.993	0.992	0.991	0.991
100	Lower 95%	0.996	0.992	0.988	0.986	0.983	0.982	0.981
	Median	0.996	0.992	0.989	0.986	0.984	0.982	0.981
	Upper 95%	0.996	0.992	0.989	0.986	0.984	0.983	0.982
150	Lower 95%	0.994	0.987	0.982	0.978	0.975	0.973	0.971
	Median	0.994	0.988	0.983	0.979	0.976	0.974	0.972
	Upper 95%	0.994	0.988	0.983	0.980	0.977	0.974	0.973
200	Lower 95%	0.992	0.983	0.977	0.971	0.967	0.964	0.961
	Median	0.992	0.984	0.977	0.972	0.968	0.965	0.962
	Upper 95%	0.992	0.984	0.978	0.973	0.969	0.966	0.964
250	Lower 95%	0.989	0.979	0.971	0.964	0.959	0.955	0.951
	Median	0.990	0.979	0.971	0.965	0.960	0.956	0.953
	Upper 95%	0.990	0.980	0.972	0.966	0.961	0.957	0.955
300	Lower 95%	0.987	0.975	0.965	0.957	0.951	0.946	0.942
	Median	0.988	0.975	0.966	0.958	0.952	0.948	0.944
	Upper 95%	0.988	0.976	0.967	0.959	0.954	0.949	0.945
350	Lower 95%	0.985	0.971	0.959	0.950	0.943	0.937	0.932
	Median	0.985	0.971	0.960	0.951	0.944	0.939	0.934

	Counterfactual of population size at 5 year intervals							
Additional adult mortality	Estimate	yr.5	yr.10	yr.15	yr.20	yr.25	yr.30	yr.35
	Upper 95%	0.986	0.972	0.961	0.953	0.946	0.941	0.936
400	Lower 95%	0.983	0.967	0.953	0.943	0.935	0.928	0.923
	Median	0.983	0.967	0.954	0.944	0.936	0.930	0.925
	Upper 95%	0.984	0.968	0.955	0.946	0.938	0.932	0.927
450	Lower 95%	0.981	0.962	0.948	0.936	0.926	0.919	0.913
	Median	0.981	0.963	0.949	0.938	0.929	0.921	0.916
	Upper 95%	0.982	0.964	0.950	0.939	0.930	0.924	0.918
500	Lower 95%	0.979	0.958	0.942	0.929	0.918	0.910	0.904
	Median	0.979	0.959	0.943	0.931	0.921	0.913	0.907
	Upper 95%	0.980	0.960	0.944	0.932	0.923	0.916	0.910
550	Lower 95%	0.977	0.954	0.936	0.922	0.910	0.901	0.894
	Median	0.977	0.955	0.938	0.924	0.913	0.904	0.897
	Upper 95%	0.977	0.956	0.939	0.926	0.915	0.907	0.900
600	Lower 95%	0.975	0.950	0.931	0.915	0.902	0.893	0.884
	Median	0.975	0.951	0.932	0.917	0.905	0.896	0.888
	Upper 95%	0.975	0.952	0.934	0.919	0.908	0.899	0.892
650	Lower 95%	0.973	0.946	0.925	0.908	0.894	0.884	0.875
	Median	0.973	0.947	0.926	0.910	0.897	0.887	0.879
	Upper 95%	0.973	0.948	0.928	0.912	0.900	0.890	0.882
700	Lower 95%	0.971	0.942	0.919	0.901	0.886	0.875	0.865
	Median	0.971	0.943	0.921	0.904	0.890	0.879	0.870
	Upper 95%	0.971	0.944	0.923	0.906	0.892	0.882	0.874
750	Lower 95%	0.969	0.938	0.914	0.894	0.879	0.866	0.856
	Median	0.969	0.939	0.915	0.897	0.882	0.870	0.861
	Upper 95%	0.969	0.940	0.917	0.899	0.885	0.874	0.865

	Counterfactual of population size at 5 year intervals							
Additional adult mortality	Estimate	yr.5	yr.10	yr.15	yr.20	yr.25	yr.30	yr.35
800	Lower 95%	0.966	0.934	0.908	0.887	0.870	0.857	0.846
	Median	0.967	0.935	0.910	0.890	0.874	0.862	0.851
	Upper 95%	0.967	0.936	0.912	0.893	0.878	0.865	0.856
850	Lower 95%	0.964	0.930	0.902	0.880	0.863	0.848	0.837
	Median	0.965	0.931	0.904	0.883	0.867	0.853	0.842
	Upper 95%	0.965	0.932	0.906	0.886	0.870	0.857	0.847
900	Lower 95%	0.962	0.926	0.897	0.873	0.855	0.840	0.828
	Median	0.963	0.927	0.899	0.877	0.859	0.845	0.833
	Upper 95%	0.963	0.928	0.901	0.880	0.863	0.849	0.838
950	Lower 95%	0.960	0.922	0.891	0.867	0.847	0.831	0.818
	Median	0.961	0.923	0.893	0.870	0.851	0.836	0.824
	Upper 95%	0.961	0.924	0.896	0.873	0.855	0.841	0.830
1000	Lower 95%	0.958	0.917	0.885	0.860	0.839	0.823	0.810
	Median	0.959	0.919	0.888	0.863	0.844	0.828	0.815
	Upper 95%	0.959	0.920	0.890	0.867	0.848	0.833	0.820
1050	Lower 95%	0.956	0.913	0.880	0.853	0.831	0.814	0.799
	Median	0.957	0.915	0.882	0.857	0.836	0.819	0.806
	Upper 95%	0.957	0.917	0.885	0.860	0.840	0.825	0.812
1100	Lower 95%	0.954	0.909	0.875	0.846	0.824	0.805	0.790
	Median	0.955	0.911	0.877	0.850	0.828	0.811	0.797
	Upper 95%	0.955	0.913	0.879	0.854	0.833	0.816	0.803
1150	Lower 95%	0.952	0.905	0.869	0.839	0.816	0.797	0.781
	Median	0.953	0.907	0.872	0.844	0.821	0.803	0.788
	Upper 95%	0.953	0.909	0.874	0.847	0.826	0.808	0.794
1200	Lower 95%	0.950	0.901	0.863	0.833	0.808	0.788	0.772

	Counterfactual of population size at 5 year intervals							
Additional adult mortality	Estimate	yr.5	yr.10	yr.15	yr.20	yr.25	yr.30	yr.35
	Median	0.951	0.903	0.866	0.837	0.813	0.795	0.779
	Upper 95%	0.951	0.905	0.869	0.841	0.818	0.800	0.785
	Lower 95%	0.948	0.897	0.858	0.826	0.801	0.780	0.763
1250	Median	0.949	0.899	0.861	0.830	0.806	0.786	0.770
	Upper 95%	0.949	0.901	0.864	0.834	0.811	0.792	0.777
	Lower 95%	0.946	0.893	0.852	0.819	0.793	0.771	0.753
1300	Median	0.947	0.895	0.855	0.824	0.799	0.778	0.761
	Upper 95%	0.947	0.897	0.858	0.828	0.803	0.784	0.768
	Lower 95%	0.944	0.889	0.847	0.813	0.785	0.763	0.744
1350	Median	0.945	0.891	0.850	0.817	0.791	0.770	0.752
	Upper 95%	0.945	0.893	0.853	0.821	0.797	0.776	0.760
	Lower 95%	0.942	0.885	0.841	0.806	0.778	0.754	0.735
1400	Median	0.943	0.888	0.845	0.811	0.784	0.762	0.744
	Upper 95%	0.943	0.890	0.848	0.815	0.789	0.768	0.752
	Lower 95%	0.940	0.881	0.836	0.799	0.770	0.746	0.726
1450	Median	0.941	0.884	0.839	0.804	0.776	0.753	0.735
	Upper 95%	0.941	0.885	0.843	0.809	0.782	0.760	0.743
	Lower 95%	0.938	0.878	0.830	0.793	0.762	0.738	0.717
1500	Median	0.939	0.880	0.834	0.798	0.769	0.745	0.726
	Upper 95%	0.939	0.882	0.837	0.802	0.775	0.752	0.734
	Lower 95%	0.936	0.874	0.825	0.786	0.754	0.729	0.708
1550	Median	0.936	0.876	0.829	0.791	0.761	0.737	0.717
	Upper 95%	0.937	0.878	0.832	0.796	0.767	0.744	0.725
	Lower 95%	0.933	0.870	0.820	0.780	0.747	0.721	0.699
1600	Median	0.934	0.872	0.824	0.785	0.754	0.729	0.708
	Upper 95%	0.934	0.872	0.824	0.785	0.754	0.729	0.708

	Counterfactual of population size at 5 year intervals							
Additional adult mortality	Estimate	yr.5	yr.10	yr.15	yr.20	yr.25	yr.30	yr.35
	Upper 95%	0.935	0.874	0.827	0.790	0.760	0.736	0.716

Table A2_12.2. Guillemot, demographic rate set 2, counterfactuals of population size after 5 to 35 years, estimated using a non-matched runs method, from 1000 density dependent simulations.

Additional adult mortality	Counterfactual of population size at 5 year intervals							
	Estimate	yr.5	yr.10	yr.15	yr.20	yr.25	yr.30	yr.35
0	Lower 95%	1.000	1.000	1.000	1.000	1.000	1.000	1.000
	Median	1.000	1.000	1.000	1.000	1.000	1.000	1.000
	Upper 95%	1.000	1.000	1.000	1.000	1.000	1.000	1.000
50	Lower 95%	0.944	0.923	0.917	0.909	0.901	0.906	0.900
	Median	0.996	0.996	0.995	0.995	0.993	0.989	0.989
	Upper 95%	1.052	1.071	1.082	1.084	1.082	1.086	1.088
100	Lower 95%	0.943	0.925	0.905	0.901	0.893	0.889	0.888
	Median	0.997	0.993	0.989	0.988	0.983	0.982	0.981
	Upper 95%	1.052	1.068	1.080	1.082	1.077	1.078	1.079
150	Lower 95%	0.941	0.917	0.905	0.898	0.892	0.883	0.881
	Median	0.994	0.990	0.984	0.980	0.978	0.977	0.974
	Upper 95%	1.051	1.064	1.069	1.071	1.073	1.077	1.069
200	Lower 95%	0.940	0.916	0.897	0.889	0.875	0.871	0.872
	Median	0.993	0.984	0.977	0.974	0.969	0.966	0.963
	Upper 95%	1.045	1.057	1.065	1.069	1.071	1.070	1.067
250	Lower 95%	0.937	0.912	0.887	0.877	0.872	0.866	0.865
	Median	0.990	0.979	0.971	0.964	0.960	0.957	0.953
	Upper 95%	1.046	1.053	1.057	1.057	1.051	1.049	1.045
300	Lower 95%	0.936	0.905	0.887	0.874	0.866	0.861	0.854
	Median	0.989	0.976	0.965	0.961	0.954	0.947	0.943
	Upper 95%	1.042	1.050	1.055	1.048	1.048	1.047	1.038
350	Lower 95%	0.932	0.901	0.883	0.867	0.859	0.851	0.848
	Median	0.987	0.973	0.961	0.953	0.947	0.939	0.935

	Counterfactual of population size at 5 year intervals							
Additional adult mortality	Estimate	yr.5	yr.10	yr.15	yr.20	yr.25	yr.30	yr.35
	Upper 95%	1.044	1.047	1.043	1.045	1.042	1.045	1.033
400	Lower 95%	0.930	0.897	0.876	0.859	0.849	0.844	0.836
	Median	0.982	0.966	0.954	0.943	0.936	0.929	0.925
	Upper 95%	1.042	1.044	1.043	1.035	1.029	1.026	1.022
450	Lower 95%	0.922	0.895	0.871	0.852	0.849	0.840	0.830
	Median	0.982	0.964	0.948	0.938	0.930	0.920	0.916
	Upper 95%	1.036	1.038	1.030	1.029	1.024	1.023	1.015
500	Lower 95%	0.925	0.893	0.865	0.851	0.838	0.826	0.818
	Median	0.980	0.959	0.942	0.933	0.923	0.916	0.908
	Upper 95%	1.037	1.036	1.031	1.017	1.016	1.017	1.005
550	Lower 95%	0.924	0.886	0.861	0.843	0.829	0.818	0.815
	Median	0.977	0.955	0.938	0.924	0.912	0.904	0.898
	Upper 95%	1.033	1.029	1.018	1.015	1.003	1.000	0.987
600	Lower 95%	0.921	0.886	0.854	0.834	0.818	0.810	0.801
	Median	0.975	0.952	0.933	0.918	0.906	0.897	0.887
	Upper 95%	1.032	1.028	1.012	1.006	0.996	0.989	0.983
650	Lower 95%	0.922	0.878	0.852	0.829	0.819	0.804	0.797
	Median	0.972	0.948	0.926	0.911	0.898	0.889	0.881
	Upper 95%	1.026	1.019	1.008	1.001	0.988	0.973	0.966
700	Lower 95%	0.915	0.870	0.843	0.824	0.807	0.795	0.785
	Median	0.970	0.943	0.921	0.903	0.889	0.878	0.868
	Upper 95%	1.025	1.016	1.003	0.992	0.980	0.971	0.966
750	Lower 95%	0.916	0.874	0.845	0.820	0.806	0.792	0.776
	Median	0.969	0.943	0.918	0.900	0.885	0.872	0.863
	Upper 95%	1.025	1.007	0.999	0.982	0.972	0.964	0.955

	Counterfactual of population size at 5 year intervals							
Additional adult mortality	Estimate	yr.5	yr.10	yr.15	yr.20	yr.25	yr.30	yr.35
800	Lower 95%	0.912	0.864	0.832	0.809	0.791	0.782	0.768
	Median	0.966	0.935	0.912	0.891	0.875	0.860	0.851
	Upper 95%	1.020	1.001	0.992	0.980	0.968	0.953	0.942
850	Lower 95%	0.911	0.861	0.835	0.803	0.784	0.774	0.763
	Median	0.965	0.933	0.905	0.886	0.867	0.852	0.843
	Upper 95%	1.014	1.002	0.985	0.973	0.958	0.941	0.932
900	Lower 95%	0.910	0.863	0.823	0.801	0.784	0.761	0.758
	Median	0.963	0.931	0.900	0.878	0.860	0.847	0.836
	Upper 95%	1.019	0.998	0.979	0.960	0.944	0.927	0.918
950	Lower 95%	0.910	0.861	0.820	0.793	0.774	0.761	0.742
	Median	0.959	0.926	0.895	0.872	0.852	0.835	0.824
	Upper 95%	1.015	0.997	0.977	0.959	0.939	0.925	0.914
1000	Lower 95%	0.910	0.851	0.813	0.786	0.772	0.756	0.736
	Median	0.959	0.921	0.890	0.866	0.846	0.830	0.816
	Upper 95%	1.015	0.988	0.970	0.946	0.925	0.911	0.899
1050	Lower 95%	0.906	0.850	0.808	0.778	0.761	0.741	0.724
	Median	0.957	0.915	0.882	0.858	0.836	0.819	0.803
	Upper 95%	1.012	0.987	0.959	0.944	0.925	0.907	0.886
1100	Lower 95%	0.900	0.845	0.804	0.778	0.751	0.734	0.722
	Median	0.955	0.911	0.875	0.850	0.829	0.810	0.797
	Upper 95%	1.011	0.986	0.961	0.935	0.909	0.895	0.883
1150	Lower 95%	0.901	0.845	0.795	0.766	0.744	0.728	0.710
	Median	0.954	0.908	0.872	0.843	0.822	0.805	0.788
	Upper 95%	1.009	0.977	0.952	0.925	0.903	0.880	0.868
1200	Lower 95%	0.901	0.842	0.796	0.766	0.734	0.717	0.705

	Counterfactual of population size at 5 year intervals							
Additional adult mortality	Estimate	yr.5	yr.10	yr.15	yr.20	yr.25	yr.30	yr.35
	Median	0.950	0.903	0.865	0.840	0.812	0.794	0.779
	Upper 95%	1.002	0.976	0.947	0.920	0.898	0.879	0.862
	Lower 95%	0.898	0.837	0.789	0.753	0.728	0.710	0.693
1250	Median	0.949	0.900	0.859	0.832	0.806	0.787	0.770
	Upper 95%	1.001	0.967	0.942	0.917	0.891	0.875	0.857
	Lower 95%	0.893	0.832	0.786	0.750	0.723	0.704	0.687
1300	Median	0.947	0.896	0.855	0.824	0.800	0.778	0.760
	Upper 95%	1.002	0.974	0.935	0.910	0.883	0.870	0.850
	Lower 95%	0.895	0.827	0.783	0.741	0.717	0.699	0.675
1350	Median	0.943	0.891	0.850	0.820	0.792	0.770	0.754
	Upper 95%	0.996	0.960	0.927	0.902	0.872	0.851	0.835
	Lower 95%	0.895	0.821	0.774	0.737	0.707	0.686	0.669
1400	Median	0.943	0.891	0.847	0.814	0.786	0.763	0.746
	Upper 95%	0.996	0.962	0.922	0.890	0.865	0.845	0.827
	Lower 95%	0.891	0.820	0.769	0.731	0.702	0.681	0.666
1450	Median	0.940	0.883	0.838	0.804	0.778	0.754	0.736
	Upper 95%	0.995	0.956	0.917	0.888	0.859	0.838	0.818
	Lower 95%	0.885	0.813	0.762	0.724	0.692	0.669	0.651
1500	Median	0.940	0.883	0.835	0.799	0.772	0.745	0.726
	Upper 95%	0.991	0.946	0.906	0.879	0.849	0.822	0.802
	Lower 95%	0.886	0.818	0.761	0.725	0.690	0.668	0.645
1550	Median	0.936	0.876	0.829	0.791	0.763	0.737	0.716
	Upper 95%	0.990	0.945	0.905	0.871	0.839	0.816	0.798
	Lower 95%	0.886	0.810	0.755	0.713	0.680	0.659	0.639
1600	Median	0.934	0.873	0.824	0.786	0.756	0.729	0.709
	Upper 95%							

Counterfactual of population size at 5 year intervals								
Additional adult mortality	Estimate	yr.5	yr.10	yr.15	yr.20	yr.25	yr.30	yr.35
	Upper 95%	0.986	0.941	0.897	0.858	0.825	0.804	0.784

Table A2_12.3. Guillemot, demographic rate set 2, counterfactuals of population growth rate calculated between year 5 and year 35, using a matched runs method, from 1000 density dependent simulations.

Additional adult mortality	Lower 95%	Median	Upper 95%
0	1.000	1.000	1.000
50	1.000	1.000	1.000
100	0.999	1.000	1.000
150	0.999	0.999	0.999
200	0.999	0.999	0.999
250	0.999	0.999	0.999
300	0.998	0.998	0.999
350	0.998	0.998	0.998
400	0.998	0.998	0.998
450	0.998	0.998	0.998
500	0.997	0.997	0.998
550	0.997	0.997	0.997
600	0.997	0.997	0.997
650	0.996	0.997	0.997
700	0.996	0.996	0.996
750	0.996	0.996	0.996
800	0.996	0.996	0.996
850	0.995	0.995	0.996
900	0.995	0.995	0.995
950	0.995	0.995	0.995
1000	0.994	0.995	0.995
1050	0.994	0.994	0.995
1100	0.994	0.994	0.994
1150	0.993	0.994	0.994

Additional adult mortality	Lower 95%	Median	Upper 95%
1200	0.993	0.993	0.994
1250	0.993	0.993	0.993
1300	0.992	0.993	0.993
1350	0.992	0.992	0.993
1400	0.992	0.992	0.992
1450	0.991	0.992	0.992
1500	0.991	0.991	0.992
1550	0.991	0.991	0.992
1600	0.990	0.991	0.991

Table A2_12.4. Guillemot, demographic rate set 2, counterfactuals of population growth rate calculated between year 5 and year 35, using a non-matched runs method, from 1000 density dependent simulations.

Additional adult mortality	Lower 95%	Median	Upper 95%
0	1.000	1.000	1.000
50	0.997	1.000	1.003
100	0.996	0.999	1.003
150	0.996	0.999	1.003
200	0.995	0.999	1.003
250	0.995	0.999	1.002
300	0.995	0.998	1.002
350	0.995	0.998	1.002
400	0.994	0.998	1.001
450	0.994	0.998	1.001
500	0.994	0.997	1.001
550	0.994	0.997	1.001
600	0.993	0.997	1.000
650	0.993	0.997	1.000
700	0.993	0.996	1.000
750	0.993	0.996	1.000
800	0.992	0.996	1.000
850	0.992	0.996	0.999
900	0.992	0.995	0.999
950	0.991	0.995	0.999
1000	0.991	0.995	0.998
1050	0.991	0.994	0.998
1100	0.990	0.994	0.998
1150	0.990	0.994	0.997

Additional adult mortality	Lower 95%	Median	Upper 95%
1200	0.990	0.993	0.997
1250	0.989	0.993	0.997
1300	0.989	0.993	0.996
1350	0.989	0.993	0.996
1400	0.989	0.992	0.996
1450	0.988	0.992	0.996
1500	0.988	0.991	0.995
1550	0.987	0.991	0.995
1600	0.987	0.991	0.994

Table A2_13.1. Razorbill, demographic rate set 1, counterfactuals of population size after 5 to 35 years, estimated using a matched runs method, from 1000 density independent simulations.

Additional adult mortality	Counterfactual of population size at 5 year intervals							
	Estimate	yr.5	yr.10	yr.15	yr.20	yr.25	yr.30	yr.35
0	Lower 95%	1.000	1.000	1.000	1.000	1.000	1.000	1.000
	Median	1.000	1.000	1.000	1.000	1.000	1.000	1.000
	Upper 95%	1.000	1.000	1.000	1.000	1.000	1.000	1.000
50	Lower 95%	0.990	0.979	0.967	0.956	0.945	0.933	0.922
	Median	0.991	0.979	0.967	0.956	0.945	0.934	0.923
	Upper 95%	0.991	0.979	0.968	0.956	0.945	0.934	0.923
100	Lower 95%	0.981	0.958	0.935	0.914	0.892	0.871	0.851
	Median	0.981	0.958	0.936	0.914	0.892	0.872	0.851
	Upper 95%	0.981	0.958	0.936	0.914	0.893	0.872	0.852
150	Lower 95%	0.972	0.938	0.905	0.873	0.842	0.813	0.784
	Median	0.972	0.938	0.905	0.873	0.843	0.813	0.785
	Upper 95%	0.972	0.938	0.906	0.874	0.843	0.814	0.785
200	Lower 95%	0.962	0.918	0.875	0.834	0.795	0.758	0.723
	Median	0.963	0.918	0.875	0.835	0.796	0.759	0.724
	Upper 95%	0.963	0.918	0.876	0.835	0.797	0.760	0.724
250	Lower 95%	0.953	0.898	0.846	0.797	0.751	0.707	0.667
	Median	0.953	0.898	0.847	0.798	0.752	0.708	0.667
	Upper 95%	0.954	0.899	0.847	0.798	0.752	0.709	0.668
300	Lower 95%	0.944	0.879	0.818	0.761	0.709	0.660	0.614
	Median	0.944	0.879	0.819	0.762	0.710	0.661	0.615
	Upper 95%	0.945	0.880	0.819	0.763	0.710	0.661	0.616
350	Lower 95%	0.935	0.860	0.791	0.727	0.669	0.615	0.566
	Median	0.935	0.860	0.792	0.728	0.670	0.616	0.567

	Counterfactual of population size at 5 year intervals							
Additional adult mortality	Estimate	yr.5	yr.10	yr.15	yr.20	yr.25	yr.30	yr.35
	Upper 95%	0.936	0.861	0.792	0.729	0.671	0.617	0.568
400	Lower 95%	0.926	0.841	0.764	0.695	0.631	0.574	0.521
	Median	0.926	0.842	0.765	0.696	0.632	0.575	0.522
	Upper 95%	0.927	0.843	0.766	0.696	0.633	0.576	0.523
450	Lower 95%	0.917	0.823	0.739	0.663	0.596	0.535	0.480
	Median	0.918	0.824	0.740	0.664	0.597	0.536	0.481
	Upper 95%	0.918	0.825	0.741	0.665	0.598	0.537	0.482
500	Lower 95%	0.908	0.805	0.714	0.633	0.562	0.498	0.442
	Median	0.909	0.806	0.715	0.635	0.563	0.499	0.443
	Upper 95%	0.910	0.807	0.716	0.636	0.564	0.501	0.444
550	Lower 95%	0.899	0.788	0.690	0.605	0.530	0.464	0.407
	Median	0.900	0.789	0.691	0.606	0.531	0.465	0.408
	Upper 95%	0.901	0.790	0.692	0.607	0.532	0.467	0.409
600	Lower 95%	0.890	0.771	0.667	0.577	0.500	0.433	0.375
	Median	0.891	0.772	0.668	0.579	0.501	0.434	0.376
	Upper 95%	0.892	0.773	0.669	0.580	0.502	0.435	0.377
650	Lower 95%	0.882	0.754	0.644	0.551	0.471	0.403	0.345
	Median	0.883	0.755	0.646	0.552	0.473	0.404	0.346
	Upper 95%	0.884	0.756	0.647	0.554	0.474	0.405	0.347
700	Lower 95%	0.873	0.737	0.623	0.526	0.445	0.376	0.317
	Median	0.874	0.739	0.624	0.527	0.446	0.377	0.318
	Upper 95%	0.875	0.740	0.625	0.529	0.447	0.378	0.319
750	Lower 95%	0.864	0.721	0.602	0.502	0.419	0.350	0.292
	Median	0.865	0.722	0.603	0.503	0.420	0.351	0.293
	Upper 95%	0.867	0.724	0.604	0.505	0.421	0.352	0.294

	Counterfactual of population size at 5 year intervals							
Additional adult mortality	Estimate	yr.5	yr.10	yr.15	yr.20	yr.25	yr.30	yr.35
800	Lower 95%	0.856	0.705	0.581	0.479	0.395	0.326	0.268
	Median	0.857	0.707	0.583	0.480	0.396	0.327	0.269
	Upper 95%	0.858	0.708	0.584	0.482	0.397	0.328	0.270
850	Lower 95%	0.847	0.690	0.562	0.457	0.372	0.303	0.247
	Median	0.849	0.691	0.563	0.458	0.373	0.304	0.248
	Upper 95%	0.850	0.692	0.564	0.460	0.375	0.305	0.249
900	Lower 95%	0.839	0.674	0.542	0.436	0.351	0.282	0.227
	Median	0.840	0.676	0.544	0.437	0.352	0.283	0.228
	Upper 95%	0.842	0.677	0.545	0.439	0.353	0.284	0.229
950	Lower 95%	0.831	0.660	0.524	0.416	0.330	0.263	0.209
	Median	0.832	0.661	0.525	0.417	0.332	0.264	0.209
	Upper 95%	0.833	0.663	0.527	0.419	0.333	0.265	0.210
1000	Lower 95%	0.822	0.645	0.506	0.397	0.311	0.244	0.192
	Median	0.824	0.647	0.507	0.398	0.312	0.245	0.192
	Upper 95%	0.825	0.648	0.509	0.400	0.314	0.246	0.193

Table A2_13.2. Razorbill, demographic rate set 1, counterfactuals of population size after 5 to 35 years, estimated using a non-matched runs method, from 1000 density independent simulations.

Additional adult mortality	Counterfactual of population size at 5 year intervals							
	Estimate	yr.5	yr.10	yr.15	yr.20	yr.25	yr.30	yr.35
0	Lower 95%	1.000	1.000	1.000	1.000	1.000	1.000	1.000
	Median	1.000	1.000	1.000	1.000	1.000	1.000	1.000
	Upper 95%	1.000	1.000	1.000	1.000	1.000	1.000	1.000
50	Lower 95%	0.879	0.811	0.771	0.731	0.700	0.662	0.632
	Median	0.990	0.974	0.961	0.949	0.939	0.930	0.914
	Upper 95%	1.113	1.172	1.202	1.242	1.267	1.296	1.309
100	Lower 95%	0.861	0.790	0.746	0.710	0.665	0.635	0.591
	Median	0.980	0.964	0.937	0.910	0.890	0.875	0.848
	Upper 95%	1.105	1.141	1.161	1.194	1.164	1.183	1.197
150	Lower 95%	0.855	0.773	0.721	0.669	0.630	0.583	0.555
	Median	0.975	0.947	0.909	0.875	0.848	0.814	0.789
	Upper 95%	1.099	1.123	1.132	1.132	1.138	1.144	1.127
200	Lower 95%	0.852	0.759	0.695	0.632	0.589	0.550	0.501
	Median	0.964	0.920	0.876	0.833	0.796	0.759	0.721
	Upper 95%	1.093	1.110	1.108	1.098	1.084	1.055	1.052
250	Lower 95%	0.843	0.746	0.682	0.618	0.558	0.505	0.468
	Median	0.954	0.900	0.848	0.806	0.757	0.714	0.669
	Upper 95%	1.082	1.085	1.083	1.042	1.022	0.975	0.955
300	Lower 95%	0.834	0.731	0.650	0.582	0.527	0.473	0.433
	Median	0.944	0.881	0.819	0.764	0.715	0.666	0.620
	Upper 95%	1.064	1.060	1.023	0.988	0.946	0.908	0.857
350	Lower 95%	0.828	0.713	0.634	0.569	0.501	0.447	0.400
	Median	0.935	0.858	0.791	0.731	0.673	0.618	0.566

	Counterfactual of population size at 5 year intervals							
Additional adult mortality	Estimate	yr.5	yr.10	yr.15	yr.20	yr.25	yr.30	yr.35
	Upper 95%	1.054	1.027	1.004	0.961	0.899	0.848	0.827
400	Lower 95%	0.819	0.707	0.614	0.542	0.470	0.424	0.370
	Median	0.927	0.844	0.770	0.701	0.635	0.578	0.522
	Upper 95%	1.045	1.009	0.957	0.907	0.849	0.807	0.753
450	Lower 95%	0.812	0.679	0.583	0.505	0.443	0.383	0.338
	Median	0.918	0.821	0.747	0.671	0.602	0.538	0.483
	Upper 95%	1.039	0.979	0.941	0.854	0.803	0.740	0.670
500	Lower 95%	0.804	0.679	0.565	0.494	0.423	0.356	0.301
	Median	0.909	0.806	0.718	0.636	0.564	0.503	0.446
	Upper 95%	1.027	0.969	0.903	0.835	0.781	0.698	0.635
550	Lower 95%	0.798	0.656	0.555	0.467	0.402	0.338	0.290
	Median	0.901	0.793	0.693	0.609	0.534	0.469	0.410
	Upper 95%	1.015	0.958	0.870	0.792	0.723	0.654	0.580
600	Lower 95%	0.789	0.645	0.538	0.443	0.379	0.312	0.267
	Median	0.890	0.768	0.665	0.577	0.502	0.433	0.376
	Upper 95%	0.993	0.924	0.847	0.767	0.672	0.591	0.536
650	Lower 95%	0.777	0.621	0.509	0.425	0.349	0.294	0.239
	Median	0.881	0.754	0.644	0.553	0.473	0.407	0.345
	Upper 95%	0.995	0.907	0.816	0.723	0.633	0.549	0.486
700	Lower 95%	0.768	0.612	0.493	0.400	0.325	0.267	0.222
	Median	0.875	0.739	0.624	0.528	0.445	0.380	0.322
	Upper 95%	0.982	0.877	0.783	0.682	0.592	0.515	0.448
750	Lower 95%	0.758	0.598	0.473	0.379	0.304	0.248	0.200
	Median	0.868	0.724	0.600	0.505	0.423	0.354	0.294
	Upper 95%	0.979	0.876	0.763	0.657	0.568	0.489	0.416

	Counterfactual of population size at 5 year intervals							
Additional adult mortality	Estimate	yr.5	yr.10	yr.15	yr.20	yr.25	yr.30	yr.35
800	Lower 95%	0.758	0.586	0.462	0.371	0.296	0.235	0.189
	Median	0.858	0.705	0.581	0.481	0.395	0.325	0.271
	Upper 95%	0.967	0.849	0.735	0.629	0.538	0.452	0.390
850	Lower 95%	0.751	0.580	0.450	0.353	0.279	0.218	0.175
	Median	0.848	0.693	0.563	0.456	0.372	0.304	0.248
	Upper 95%	0.955	0.826	0.705	0.601	0.506	0.429	0.359
900	Lower 95%	0.740	0.563	0.435	0.340	0.265	0.207	0.161
	Median	0.841	0.676	0.544	0.437	0.351	0.284	0.229
	Upper 95%	0.944	0.813	0.687	0.566	0.473	0.397	0.326
950	Lower 95%	0.740	0.554	0.428	0.323	0.247	0.197	0.155
	Median	0.833	0.661	0.525	0.418	0.332	0.264	0.211
	Upper 95%	0.946	0.792	0.655	0.537	0.446	0.363	0.295
1000	Lower 95%	0.729	0.541	0.404	0.308	0.235	0.178	0.137
	Median	0.824	0.643	0.506	0.397	0.314	0.246	0.192
	Upper 95%	0.932	0.786	0.642	0.528	0.432	0.344	0.272

Table A2_13.3. Razorbill, demographic rate set 1, counterfactuals of population growth rate calculated between year 5 and year 35, using a matched runs method, from 1000 density independent simulations.

Additional adult mortality	Lower 95%	Median	Upper 95%
0	1.000	1.000	1.000
50	0.998	0.998	0.998
100	0.995	0.995	0.995
150	0.993	0.993	0.993
200	0.991	0.991	0.991
250	0.988	0.988	0.988
300	0.986	0.986	0.986
350	0.983	0.983	0.983
400	0.981	0.981	0.981
450	0.979	0.979	0.979
500	0.976	0.976	0.976
550	0.974	0.974	0.974
600	0.972	0.972	0.972
650	0.969	0.969	0.969
700	0.967	0.967	0.967
750	0.964	0.965	0.965
800	0.962	0.962	0.962
850	0.960	0.960	0.960
900	0.957	0.957	0.958
950	0.955	0.955	0.955
1000	0.953	0.953	0.953

Table A2_13.4. Razorbill, demographic rate set 1, counterfactuals of population growth rate calculated between year 5 and year 35, using a non-matched runs method, from 1000 density independent simulations.

Additional adult mortality	Lower 95%	Median	Upper 95%
0	1.000	1.000	1.000
50	0.986	0.998	1.009
100	0.984	0.995	1.006
150	0.982	0.993	1.004
200	0.980	0.991	1.002
250	0.977	0.988	0.999
300	0.975	0.986	0.996
350	0.973	0.983	0.994
400	0.970	0.981	0.992
450	0.968	0.979	0.989
500	0.965	0.977	0.988
550	0.963	0.974	0.985
600	0.961	0.972	0.982
650	0.959	0.969	0.980
700	0.956	0.967	0.977
750	0.954	0.965	0.975
800	0.951	0.962	0.973
850	0.950	0.960	0.970
900	0.947	0.958	0.969
950	0.945	0.955	0.965
1000	0.943	0.953	0.963

Table A2_14.1. Razorbill, demographic rate set 1, counterfactuals of population size after 5 to 35 years, estimated using a matched runs method, from 1000 density dependent simulations.

Additional adult mortality	Counterfactual of population size at 5 year intervals							
	Estimate	yr.5	yr.10	yr.15	yr.20	yr.25	yr.30	yr.35
0	Lower 95%	1.000	1.000	1.000	1.000	1.000	1.000	1.000
	Median	1.000	1.000	1.000	1.000	1.000	1.000	1.000
	Upper 95%	1.000	1.000	1.000	1.000	1.000	1.000	1.000
50	Lower 95%	0.992	0.986	0.982	0.979	0.978	0.977	0.977
	Median	0.992	0.986	0.983	0.980	0.979	0.978	0.978
	Upper 95%	0.992	0.987	0.983	0.981	0.980	0.979	0.979
100	Lower 95%	0.984	0.971	0.964	0.959	0.956	0.955	0.953
	Median	0.984	0.972	0.965	0.961	0.958	0.957	0.956
	Upper 95%	0.985	0.973	0.967	0.962	0.960	0.958	0.958
150	Lower 95%	0.976	0.957	0.946	0.939	0.934	0.932	0.930
	Median	0.977	0.959	0.948	0.941	0.937	0.935	0.933
	Upper 95%	0.977	0.960	0.950	0.944	0.940	0.938	0.937
200	Lower 95%	0.968	0.943	0.928	0.918	0.913	0.909	0.907
	Median	0.969	0.945	0.931	0.922	0.917	0.913	0.911
	Upper 95%	0.969	0.947	0.933	0.925	0.920	0.917	0.915
250	Lower 95%	0.960	0.929	0.910	0.898	0.891	0.886	0.884
	Median	0.961	0.931	0.914	0.903	0.896	0.892	0.889
	Upper 95%	0.962	0.933	0.917	0.906	0.900	0.896	0.894
300	Lower 95%	0.952	0.915	0.892	0.878	0.869	0.863	0.860
	Median	0.954	0.918	0.897	0.883	0.875	0.870	0.867
	Upper 95%	0.954	0.920	0.900	0.888	0.880	0.875	0.873
350	Lower 95%	0.944	0.901	0.875	0.858	0.847	0.840	0.836
	Median	0.946	0.905	0.880	0.864	0.855	0.848	0.844

	Counterfactual of population size at 5 year intervals							
Additional adult mortality	Estimate	yr.5	yr.10	yr.15	yr.20	yr.25	yr.30	yr.35
	Upper 95%	0.947	0.907	0.884	0.870	0.861	0.855	0.851
400	Lower 95%	0.937	0.887	0.857	0.838	0.825	0.818	0.813
	Median	0.938	0.891	0.863	0.845	0.834	0.826	0.822
	Upper 95%	0.939	0.894	0.868	0.851	0.841	0.834	0.830
450	Lower 95%	0.929	0.873	0.839	0.817	0.803	0.795	0.789
	Median	0.931	0.878	0.846	0.826	0.813	0.805	0.799
	Upper 95%	0.932	0.882	0.851	0.833	0.821	0.813	0.809
500	Lower 95%	0.921	0.860	0.823	0.799	0.782	0.772	0.766
	Median	0.923	0.865	0.829	0.807	0.792	0.783	0.777
	Upper 95%	0.924	0.869	0.836	0.815	0.801	0.793	0.787
550	Lower 95%	0.914	0.847	0.805	0.779	0.761	0.749	0.741
	Median	0.916	0.852	0.812	0.788	0.771	0.761	0.754
	Upper 95%	0.917	0.856	0.819	0.796	0.782	0.772	0.765
600	Lower 95%	0.906	0.833	0.788	0.758	0.740	0.727	0.718
	Median	0.908	0.838	0.796	0.769	0.751	0.739	0.731
	Upper 95%	0.910	0.843	0.803	0.777	0.761	0.750	0.743
650	Lower 95%	0.898	0.819	0.771	0.739	0.718	0.703	0.693
	Median	0.901	0.825	0.779	0.750	0.730	0.718	0.708
	Upper 95%	0.902	0.831	0.787	0.759	0.741	0.730	0.722
700	Lower 95%	0.890	0.806	0.753	0.720	0.697	0.681	0.670
	Median	0.893	0.813	0.763	0.731	0.710	0.695	0.686
	Upper 95%	0.895	0.818	0.771	0.742	0.722	0.709	0.700
750	Lower 95%	0.883	0.793	0.737	0.700	0.675	0.658	0.646
	Median	0.886	0.800	0.747	0.712	0.689	0.673	0.663
	Upper 95%	0.888	0.805	0.756	0.724	0.702	0.688	0.678

	Counterfactual of population size at 5 year intervals							
Additional adult mortality	Estimate	yr.5	yr.10	yr.15	yr.20	yr.25	yr.30	yr.35
800	Lower 95%	0.875	0.780	0.720	0.681	0.654	0.635	0.622
	Median	0.878	0.787	0.730	0.694	0.669	0.652	0.640
	Upper 95%	0.881	0.793	0.739	0.705	0.683	0.666	0.655
850	Lower 95%	0.868	0.767	0.704	0.662	0.634	0.614	0.599
	Median	0.871	0.774	0.715	0.676	0.649	0.631	0.617
	Upper 95%	0.873	0.781	0.725	0.687	0.662	0.646	0.633
900	Lower 95%	0.860	0.754	0.687	0.643	0.612	0.590	0.575
	Median	0.864	0.762	0.699	0.657	0.628	0.609	0.594
	Upper 95%	0.866	0.768	0.708	0.670	0.643	0.625	0.612
950	Lower 95%	0.853	0.741	0.671	0.626	0.591	0.568	0.552
	Median	0.856	0.749	0.683	0.639	0.609	0.587	0.572
	Upper 95%	0.859	0.757	0.693	0.652	0.623	0.604	0.590
1000	Lower 95%	0.845	0.729	0.654	0.605	0.571	0.547	0.527
	Median	0.849	0.737	0.667	0.621	0.589	0.566	0.548
	Upper 95%	0.852	0.744	0.678	0.635	0.605	0.584	0.568

Table A2_14.2. Razorbill, demographic rate set 1, counterfactuals of population size after 5 to 35 years, estimated using a non-matched runs method, from 1000 density dependent simulations.

Additional adult mortality	Counterfactual of population size at 5 year intervals							
	Estimate	yr.5	yr.10	yr.15	yr.20	yr.25	yr.30	yr.35
0	Lower 95%	1.000	1.000	1.000	1.000	1.000	1.000	1.000
	Median	1.000	1.000	1.000	1.000	1.000	1.000	1.000
	Upper 95%	1.000	1.000	1.000	1.000	1.000	1.000	1.000
50	Lower 95%	0.897	0.877	0.870	0.850	0.860	0.852	0.848
	Median	0.992	0.986	0.983	0.980	0.982	0.981	0.978
	Upper 95%	1.096	1.110	1.133	1.116	1.136	1.133	1.116
100	Lower 95%	0.894	0.859	0.845	0.835	0.839	0.835	0.827
	Median	0.985	0.973	0.965	0.960	0.961	0.954	0.956
	Upper 95%	1.095	1.092	1.111	1.090	1.088	1.092	1.095
150	Lower 95%	0.879	0.848	0.826	0.821	0.830	0.814	0.813
	Median	0.975	0.954	0.944	0.936	0.933	0.934	0.931
	Upper 95%	1.078	1.079	1.098	1.077	1.080	1.079	1.081
200	Lower 95%	0.877	0.831	0.814	0.795	0.791	0.799	0.794
	Median	0.970	0.946	0.930	0.920	0.916	0.910	0.909
	Upper 95%	1.072	1.058	1.061	1.061	1.056	1.050	1.047
250	Lower 95%	0.863	0.828	0.807	0.796	0.783	0.772	0.777
	Median	0.963	0.936	0.916	0.903	0.900	0.891	0.885
	Upper 95%	1.060	1.045	1.053	1.030	1.037	1.031	1.021
300	Lower 95%	0.859	0.812	0.786	0.769	0.762	0.758	0.752
	Median	0.953	0.916	0.894	0.882	0.876	0.870	0.865
	Upper 95%	1.053	1.044	1.022	1.012	1.002	1.007	0.992
350	Lower 95%	0.853	0.799	0.772	0.755	0.740	0.737	0.737
	Median	0.946	0.907	0.881	0.862	0.856	0.846	0.843

	Counterfactual of population size at 5 year intervals							
Additional adult mortality	Estimate	yr.5	yr.10	yr.15	yr.20	yr.25	yr.30	yr.35
	Upper 95%	1.045	1.030	1.007	0.998	0.993	0.977	0.975
400	Lower 95%	0.849	0.784	0.754	0.735	0.720	0.716	0.707
	Median	0.939	0.891	0.861	0.842	0.835	0.826	0.819
	Upper 95%	1.046	1.022	0.991	0.979	0.965	0.955	0.946
450	Lower 95%	0.835	0.768	0.734	0.713	0.709	0.702	0.693
	Median	0.931	0.878	0.844	0.824	0.814	0.807	0.800
	Upper 95%	1.032	0.992	0.964	0.952	0.944	0.925	0.922
500	Lower 95%	0.829	0.763	0.726	0.703	0.688	0.678	0.674
	Median	0.922	0.865	0.830	0.804	0.795	0.781	0.778
	Upper 95%	1.022	0.977	0.958	0.925	0.920	0.905	0.896
550	Lower 95%	0.833	0.752	0.710	0.680	0.668	0.657	0.649
	Median	0.916	0.853	0.811	0.786	0.772	0.764	0.755
	Upper 95%	1.010	0.959	0.935	0.901	0.891	0.881	0.864
600	Lower 95%	0.817	0.737	0.689	0.671	0.649	0.643	0.637
	Median	0.907	0.838	0.795	0.768	0.753	0.741	0.730
	Upper 95%	1.006	0.951	0.913	0.885	0.878	0.849	0.844
650	Lower 95%	0.804	0.729	0.680	0.649	0.636	0.616	0.611
	Median	0.901	0.825	0.778	0.746	0.731	0.715	0.705
	Upper 95%	1.002	0.923	0.897	0.862	0.843	0.828	0.811
700	Lower 95%	0.802	0.719	0.660	0.634	0.618	0.600	0.587
	Median	0.892	0.812	0.761	0.731	0.712	0.698	0.685
	Upper 95%	0.987	0.926	0.880	0.841	0.824	0.804	0.792
750	Lower 95%	0.800	0.702	0.655	0.614	0.595	0.580	0.574
	Median	0.884	0.801	0.747	0.709	0.685	0.673	0.661
	Upper 95%	0.983	0.898	0.851	0.816	0.796	0.789	0.771

	Counterfactual of population size at 5 year intervals							
Additional adult mortality	Estimate	yr.5	yr.10	yr.15	yr.20	yr.25	yr.30	yr.35
800	Lower 95%	0.791	0.692	0.639	0.600	0.575	0.557	0.543
	Median	0.879	0.787	0.729	0.692	0.671	0.652	0.640
	Upper 95%	0.969	0.885	0.833	0.804	0.777	0.753	0.735
850	Lower 95%	0.780	0.684	0.625	0.587	0.563	0.543	0.535
	Median	0.870	0.775	0.714	0.673	0.651	0.631	0.616
	Upper 95%	0.967	0.873	0.825	0.776	0.762	0.738	0.715
900	Lower 95%	0.779	0.675	0.610	0.569	0.546	0.525	0.509
	Median	0.862	0.761	0.696	0.657	0.632	0.610	0.595
	Upper 95%	0.957	0.863	0.799	0.753	0.732	0.716	0.688
950	Lower 95%	0.775	0.665	0.596	0.554	0.518	0.503	0.494
	Median	0.857	0.750	0.684	0.639	0.612	0.590	0.571
	Upper 95%	0.949	0.843	0.784	0.729	0.707	0.678	0.662
1000	Lower 95%	0.760	0.641	0.578	0.538	0.512	0.486	0.469
	Median	0.848	0.736	0.669	0.621	0.590	0.564	0.551
	Upper 95%	0.949	0.836	0.769	0.719	0.686	0.654	0.632

Table A2_14.3. Razorbill, demographic rate set 1, counterfactuals of population growth rate calculated between year 5 and year 35, using a matched runs method, from 1000 density dependent simulations.

Additional adult mortality	Lower 95%	Median	Upper 95%
0	1.000	1.000	1.000
50	0.999	1.000	1.000
100	0.999	0.999	0.999
150	0.998	0.998	0.999
200	0.998	0.998	0.998
250	0.997	0.997	0.998
300	0.997	0.997	0.997
350	0.996	0.996	0.996
400	0.995	0.996	0.996
450	0.995	0.995	0.995
500	0.994	0.994	0.995
550	0.993	0.994	0.994
600	0.992	0.993	0.993
650	0.991	0.992	0.993
700	0.990	0.991	0.992
750	0.990	0.990	0.991
800	0.989	0.990	0.990
850	0.988	0.989	0.989
900	0.987	0.988	0.989
950	0.985	0.987	0.988
1000	0.984	0.986	0.987

Table A2_14.4. Razorbill, demographic rate set 1, counterfactuals of population growth rate calculated between year 5 and year 35, using a non-matched runs method, from 1000 density dependent simulations.

Additional adult mortality	Lower 95%	Median	Upper 95%
0	1.000	1.000	1.000
50	0.994	0.999	1.005
100	0.993	0.999	1.005
150	0.993	0.998	1.005
200	0.992	0.998	1.003
250	0.992	0.997	1.003
300	0.991	0.997	1.003
350	0.991	0.996	1.002
400	0.989	0.995	1.001
450	0.989	0.995	1.001
500	0.989	0.994	1.000
550	0.988	0.994	0.999
600	0.988	0.993	0.999
650	0.986	0.992	0.997
700	0.985	0.991	0.997
750	0.985	0.990	0.997
800	0.983	0.989	0.995
850	0.983	0.989	0.995
900	0.982	0.988	0.994
950	0.981	0.987	0.993
1000	0.979	0.986	0.991

Table A2_15.1. Razorbill, demographic rate set 2, counterfactuals of population size after 5 to 35 years, estimated using a matched runs method, from 1000 density independent simulations.

Additional adult mortality	Counterfactual of population size at 5 year intervals							
	Estimate	yr.5	yr.10	yr.15	yr.20	yr.25	yr.30	yr.35
0	Lower 95%	1.000	1.000	1.000	1.000	1.000	1.000	1.000
	Median	1.000	1.000	1.000	1.000	1.000	1.000	1.000
	Upper 95%	1.000	1.000	1.000	1.000	1.000	1.000	1.000
50	Lower 95%	0.990	0.978	0.966	0.955	0.943	0.932	0.921
	Median	0.991	0.979	0.967	0.956	0.945	0.933	0.922
	Upper 95%	0.991	0.980	0.969	0.957	0.946	0.935	0.924
100	Lower 95%	0.980	0.956	0.933	0.911	0.890	0.868	0.848
	Median	0.981	0.958	0.936	0.914	0.892	0.871	0.851
	Upper 95%	0.983	0.960	0.938	0.917	0.895	0.874	0.854
150	Lower 95%	0.970	0.935	0.902	0.870	0.839	0.809	0.780
	Median	0.972	0.938	0.905	0.873	0.842	0.813	0.784
	Upper 95%	0.974	0.941	0.908	0.877	0.847	0.817	0.789
200	Lower 95%	0.960	0.914	0.871	0.829	0.790	0.753	0.718
	Median	0.963	0.918	0.875	0.834	0.795	0.758	0.723
	Upper 95%	0.965	0.922	0.880	0.839	0.801	0.764	0.729
250	Lower 95%	0.950	0.894	0.841	0.792	0.745	0.701	0.660
	Median	0.953	0.898	0.846	0.797	0.751	0.707	0.666
	Upper 95%	0.957	0.903	0.852	0.803	0.757	0.714	0.673
300	Lower 95%	0.940	0.874	0.812	0.755	0.703	0.653	0.608
	Median	0.944	0.879	0.818	0.762	0.709	0.660	0.614
	Upper 95%	0.948	0.884	0.825	0.769	0.716	0.667	0.622
350	Lower 95%	0.931	0.854	0.785	0.721	0.662	0.608	0.558
	Median	0.935	0.860	0.791	0.728	0.669	0.616	0.566

	Counterfactual of population size at 5 year intervals							
Additional adult mortality	Estimate	yr.5	yr.10	yr.15	yr.20	yr.25	yr.30	yr.35
	Upper 95%	0.940	0.867	0.799	0.735	0.677	0.623	0.574
400	Lower 95%	0.921	0.835	0.757	0.687	0.624	0.566	0.514
	Median	0.926	0.842	0.765	0.695	0.631	0.574	0.521
	Upper 95%	0.931	0.848	0.772	0.703	0.640	0.583	0.530
450	Lower 95%	0.912	0.816	0.731	0.655	0.587	0.526	0.472
	Median	0.918	0.824	0.740	0.664	0.596	0.535	0.480
	Upper 95%	0.923	0.831	0.748	0.673	0.604	0.544	0.489
500	Lower 95%	0.902	0.798	0.706	0.625	0.553	0.489	0.434
	Median	0.909	0.806	0.715	0.634	0.562	0.499	0.442
	Upper 95%	0.915	0.814	0.724	0.644	0.571	0.508	0.451
550	Lower 95%	0.892	0.780	0.681	0.596	0.521	0.455	0.398
	Median	0.900	0.788	0.691	0.605	0.530	0.465	0.407
	Upper 95%	0.907	0.798	0.701	0.615	0.540	0.474	0.416
600	Lower 95%	0.884	0.761	0.658	0.568	0.490	0.423	0.366
	Median	0.891	0.771	0.667	0.578	0.500	0.433	0.374
	Upper 95%	0.898	0.781	0.679	0.589	0.511	0.442	0.384
650	Lower 95%	0.874	0.744	0.635	0.541	0.461	0.393	0.336
	Median	0.882	0.754	0.645	0.551	0.471	0.403	0.345
	Upper 95%	0.890	0.765	0.656	0.562	0.481	0.413	0.353
700	Lower 95%	0.865	0.728	0.613	0.516	0.436	0.367	0.310
	Median	0.874	0.738	0.623	0.527	0.444	0.375	0.317
	Upper 95%	0.883	0.749	0.635	0.537	0.456	0.386	0.326
750	Lower 95%	0.856	0.711	0.591	0.492	0.410	0.341	0.283
	Median	0.865	0.722	0.602	0.503	0.419	0.350	0.292
	Upper 95%	0.874	0.733	0.614	0.514	0.430	0.359	0.300

	Counterfactual of population size at 5 year intervals							
Additional adult mortality	Estimate	yr.5	yr.10	yr.15	yr.20	yr.25	yr.30	yr.35
800	Lower 95%	0.847	0.695	0.570	0.469	0.385	0.316	0.260
	Median	0.857	0.706	0.582	0.479	0.395	0.326	0.268
	Upper 95%	0.867	0.718	0.595	0.492	0.406	0.336	0.277
850	Lower 95%	0.837	0.679	0.550	0.446	0.362	0.294	0.239
	Median	0.848	0.690	0.562	0.457	0.372	0.303	0.247
	Upper 95%	0.858	0.702	0.573	0.469	0.383	0.312	0.255
900	Lower 95%	0.829	0.662	0.530	0.425	0.340	0.273	0.219
	Median	0.840	0.675	0.543	0.436	0.351	0.282	0.227
	Upper 95%	0.851	0.689	0.556	0.449	0.363	0.292	0.236
950	Lower 95%	0.820	0.648	0.512	0.404	0.320	0.254	0.201
	Median	0.832	0.661	0.525	0.417	0.331	0.263	0.208
	Upper 95%	0.844	0.674	0.538	0.429	0.341	0.272	0.216
1000	Lower 95%	0.812	0.632	0.494	0.386	0.301	0.235	0.184
	Median	0.824	0.646	0.507	0.398	0.312	0.244	0.192
	Upper 95%	0.836	0.660	0.520	0.410	0.323	0.254	0.200

Table A2_15.2. Razorbill, demographic rate set 2, counterfactuals of population size after 5 to 35 years, estimated using a non-matched runs method, from 1000 density independent simulations.

Additional adult mortality	Counterfactual of population size at 5 year intervals							
	Estimate	yr.5	yr.10	yr.15	yr.20	yr.25	yr.30	yr.35
0	Lower 95%	1.000	1.000	1.000	1.000	1.000	1.000	1.000
	Median	1.000	1.000	1.000	1.000	1.000	1.000	1.000
	Upper 95%	1.000	1.000	1.000	1.000	1.000	1.000	1.000
50	Lower 95%	0.661	0.575	0.475	0.423	0.397	0.361	0.322
	Median	0.991	0.981	0.978	0.964	0.951	0.954	0.969
	Upper 95%	1.440	1.719	2.035	2.145	2.290	2.426	2.535
100	Lower 95%	0.659	0.505	0.458	0.391	0.334	0.305	0.278
	Median	0.968	0.945	0.922	0.914	0.878	0.865	0.847
	Upper 95%	1.391	1.671	1.840	2.041	2.154	2.321	2.521
150	Lower 95%	0.666	0.544	0.453	0.394	0.327	0.292	0.279
	Median	0.968	0.942	0.917	0.892	0.855	0.827	0.832
	Upper 95%	1.399	1.665	1.785	2.112	2.304	2.422	2.478
200	Lower 95%	0.668	0.517	0.437	0.388	0.333	0.292	0.266
	Median	0.959	0.929	0.872	0.831	0.784	0.773	0.756
	Upper 95%	1.369	1.566	1.736	1.824	1.962	2.084	2.198
250	Lower 95%	0.668	0.538	0.433	0.382	0.315	0.274	0.230
	Median	0.952	0.894	0.855	0.805	0.757	0.729	0.707
	Upper 95%	1.377	1.552	1.623	1.720	1.827	1.810	1.841
300	Lower 95%	0.650	0.510	0.410	0.346	0.274	0.241	0.213
	Median	0.941	0.871	0.827	0.766	0.710	0.672	0.614
	Upper 95%	1.361	1.578	1.689	1.766	1.875	1.860	1.826
350	Lower 95%	0.641	0.500	0.379	0.317	0.266	0.226	0.204
	Median	0.930	0.849	0.782	0.729	0.660	0.638	0.579

	Counterfactual of population size at 5 year intervals							
Additional adult mortality	Estimate	yr.5	yr.10	yr.15	yr.20	yr.25	yr.30	yr.35
	Upper 95%	1.356	1.529	1.586	1.550	1.665	1.722	1.674
400	Lower 95%	0.636	0.468	0.364	0.294	0.241	0.198	0.174
	Median	0.926	0.845	0.776	0.705	0.627	0.588	0.548
	Upper 95%	1.304	1.478	1.509	1.554	1.615	1.497	1.481
450	Lower 95%	0.635	0.476	0.381	0.289	0.233	0.193	0.165
	Median	0.916	0.826	0.731	0.666	0.597	0.547	0.486
	Upper 95%	1.277	1.438	1.474	1.389	1.464	1.401	1.395
500	Lower 95%	0.617	0.469	0.371	0.280	0.230	0.183	0.145
	Median	0.903	0.802	0.708	0.627	0.567	0.515	0.459
	Upper 95%	1.307	1.386	1.413	1.373	1.386	1.334	1.326
550	Lower 95%	0.612	0.442	0.344	0.260	0.211	0.173	0.143
	Median	0.904	0.798	0.696	0.603	0.524	0.466	0.422
	Upper 95%	1.316	1.423	1.369	1.365	1.288	1.204	1.175
600	Lower 95%	0.602	0.452	0.338	0.267	0.207	0.163	0.127
	Median	0.890	0.767	0.661	0.574	0.493	0.437	0.390
	Upper 95%	1.269	1.300	1.318	1.265	1.229	1.134	1.049
650	Lower 95%	0.609	0.446	0.335	0.260	0.193	0.153	0.117
	Median	0.878	0.760	0.651	0.566	0.477	0.421	0.367
	Upper 95%	1.265	1.275	1.253	1.158	1.129	1.062	0.967
700	Lower 95%	0.610	0.419	0.330	0.249	0.183	0.148	0.114
	Median	0.881	0.748	0.641	0.541	0.460	0.390	0.328
	Upper 95%	1.297	1.329	1.288	1.148	1.095	1.050	0.945
750	Lower 95%	0.617	0.421	0.296	0.232	0.162	0.128	0.094
	Median	0.871	0.727	0.611	0.506	0.421	0.356	0.301
	Upper 95%	1.238	1.237	1.189	1.111	1.057	0.931	0.853

	Counterfactual of population size at 5 year intervals							
Additional adult mortality	Estimate	yr.5	yr.10	yr.15	yr.20	yr.25	yr.30	yr.35
800	Lower 95%	0.582	0.403	0.287	0.219	0.152	0.123	0.091
	Median	0.851	0.706	0.589	0.483	0.393	0.324	0.272
	Upper 95%	1.257	1.241	1.166	1.028	0.945	0.868	0.760
850	Lower 95%	0.578	0.386	0.274	0.200	0.152	0.119	0.086
	Median	0.842	0.685	0.556	0.453	0.378	0.307	0.254
	Upper 95%	1.222	1.212	1.149	1.086	0.974	0.844	0.742
900	Lower 95%	0.587	0.381	0.275	0.198	0.139	0.106	0.075
	Median	0.837	0.670	0.542	0.432	0.348	0.288	0.233
	Upper 95%	1.192	1.186	1.093	0.980	0.862	0.794	0.657
950	Lower 95%	0.566	0.381	0.244	0.179	0.127	0.098	0.076
	Median	0.827	0.657	0.519	0.411	0.333	0.263	0.209
	Upper 95%	1.217	1.157	1.044	0.898	0.807	0.696	0.602
1000	Lower 95%	0.572	0.357	0.242	0.171	0.124	0.084	0.062
	Median	0.829	0.646	0.515	0.399	0.311	0.247	0.195
	Upper 95%	1.183	1.146	0.994	0.880	0.793	0.650	0.564

Table A2_15.3. Razorbill, demographic rate set 2, counterfactuals of population growth rate calculated between year 5 and year 35, using a matched runs method, from 1000 density independent simulations.

Additional adult mortality	Lower 95%	Median	Upper 95%
0	1.000	1.000	1.000
50	0.998	0.998	0.998
100	0.995	0.995	0.995
150	0.993	0.993	0.993
200	0.990	0.991	0.991
250	0.988	0.988	0.988
300	0.985	0.986	0.986
350	0.983	0.983	0.984
400	0.981	0.981	0.982
450	0.978	0.979	0.979
500	0.976	0.976	0.977
550	0.973	0.974	0.975
600	0.971	0.972	0.972
650	0.968	0.969	0.970
700	0.966	0.967	0.968
750	0.964	0.964	0.965
800	0.961	0.962	0.963
850	0.959	0.960	0.961
900	0.956	0.957	0.958
950	0.954	0.955	0.956
1000	0.951	0.953	0.954

Table A2_15.4. Razorbill, demographic rate set 2, counterfactuals of population growth rate calculated between year 5 and year 35, using a non-matched runs method, from 1000 density independent simulations.

Additional adult mortality	Lower 95%	Median	Upper 95%
0	1.000	1.000	1.000
50	0.966	0.999	1.031
100	0.963	0.995	1.030
150	0.960	0.995	1.030
200	0.960	0.992	1.025
250	0.957	0.990	1.019
300	0.953	0.985	1.019
350	0.954	0.984	1.016
400	0.948	0.983	1.013
450	0.946	0.980	1.013
500	0.945	0.978	1.011
550	0.942	0.975	1.006
600	0.938	0.973	1.004
650	0.939	0.971	1.002
700	0.934	0.968	1.000
750	0.932	0.966	0.998
800	0.931	0.963	0.994
850	0.929	0.961	0.995
900	0.925	0.958	0.990
950	0.926	0.955	0.990
1000	0.920	0.953	0.985

Table A2_16.1. Razorbill, demographic rate set 2, counterfactuals of population size after 5 to 35 years, estimated using a matched runs method, from 1000 density dependent simulations.

Additional adult mortality	Counterfactual of population size at 5 year intervals							
	Estimate	yr.5	yr.10	yr.15	yr.20	yr.25	yr.30	yr.35
0	Lower 95%	1.000	1.000	1.000	1.000	1.000	1.000	1.000
	Median	1.000	1.000	1.000	1.000	1.000	1.000	1.000
	Upper 95%	1.000	1.000	1.000	1.000	1.000	1.000	1.000
50	Lower 95%	0.990	0.979	0.969	0.959	0.950	0.941	0.933
	Median	0.991	0.981	0.971	0.963	0.955	0.949	0.943
	Upper 95%	0.992	0.982	0.973	0.966	0.961	0.956	0.952
100	Lower 95%	0.980	0.958	0.939	0.920	0.902	0.886	0.870
	Median	0.982	0.961	0.943	0.927	0.912	0.899	0.888
	Upper 95%	0.983	0.964	0.947	0.934	0.923	0.912	0.904
150	Lower 95%	0.970	0.938	0.909	0.882	0.856	0.832	0.811
	Median	0.973	0.943	0.916	0.892	0.871	0.851	0.834
	Upper 95%	0.975	0.946	0.921	0.901	0.884	0.870	0.859
200	Lower 95%	0.960	0.918	0.880	0.845	0.812	0.782	0.753
	Median	0.964	0.924	0.889	0.858	0.830	0.806	0.784
	Upper 95%	0.967	0.928	0.896	0.871	0.849	0.830	0.814
250	Lower 95%	0.950	0.899	0.851	0.808	0.768	0.731	0.697
	Median	0.955	0.906	0.863	0.825	0.791	0.761	0.734
	Upper 95%	0.958	0.911	0.872	0.840	0.813	0.791	0.772
300	Lower 95%	0.941	0.880	0.824	0.774	0.728	0.686	0.649
	Median	0.946	0.887	0.837	0.792	0.753	0.718	0.687
	Upper 95%	0.950	0.894	0.848	0.810	0.778	0.749	0.725
350	Lower 95%	0.931	0.861	0.798	0.742	0.690	0.644	0.602
	Median	0.937	0.870	0.812	0.761	0.717	0.678	0.643

	Counterfactual of population size at 5 year intervals							
Additional adult mortality	Estimate	yr.5	yr.10	yr.15	yr.20	yr.25	yr.30	yr.35
	Upper 95%	0.942	0.877	0.823	0.780	0.743	0.714	0.687
400	Lower 95%	0.922	0.842	0.771	0.708	0.650	0.600	0.552
	Median	0.929	0.852	0.786	0.729	0.679	0.635	0.596
	Upper 95%	0.934	0.860	0.801	0.751	0.710	0.674	0.642
450	Lower 95%	0.912	0.823	0.745	0.677	0.617	0.563	0.514
	Median	0.920	0.835	0.763	0.701	0.648	0.601	0.559
	Upper 95%	0.926	0.844	0.778	0.724	0.679	0.642	0.607
500	Lower 95%	0.902	0.805	0.722	0.648	0.584	0.527	0.475
	Median	0.911	0.818	0.739	0.673	0.615	0.565	0.521
	Upper 95%	0.918	0.828	0.754	0.696	0.648	0.605	0.570
550	Lower 95%	0.893	0.788	0.699	0.619	0.551	0.493	0.439
	Median	0.902	0.801	0.716	0.644	0.583	0.529	0.483
	Upper 95%	0.910	0.811	0.731	0.667	0.614	0.571	0.534
600	Lower 95%	0.883	0.768	0.672	0.590	0.518	0.457	0.402
	Median	0.894	0.784	0.693	0.616	0.551	0.495	0.446
	Upper 95%	0.901	0.794	0.709	0.643	0.587	0.540	0.498
650	Lower 95%	0.876	0.752	0.651	0.564	0.491	0.428	0.372
	Median	0.886	0.768	0.672	0.591	0.523	0.466	0.416
	Upper 95%	0.894	0.780	0.690	0.618	0.560	0.511	0.470
700	Lower 95%	0.866	0.737	0.629	0.539	0.462	0.399	0.345
	Median	0.877	0.752	0.650	0.566	0.496	0.436	0.385
	Upper 95%	0.886	0.764	0.669	0.592	0.529	0.478	0.432
750	Lower 95%	0.856	0.720	0.607	0.514	0.436	0.371	0.316
	Median	0.868	0.736	0.630	0.542	0.469	0.409	0.357
	Upper 95%	0.878	0.749	0.649	0.570	0.507	0.454	0.407

	Counterfactual of population size at 5 year intervals							
Additional adult mortality	Estimate	yr.5	yr.10	yr.15	yr.20	yr.25	yr.30	yr.35
800	Lower 95%	0.847	0.703	0.586	0.490	0.410	0.343	0.288
	Median	0.860	0.721	0.609	0.519	0.444	0.381	0.329
	Upper 95%	0.870	0.734	0.629	0.547	0.481	0.424	0.377
850	Lower 95%	0.837	0.686	0.564	0.466	0.386	0.320	0.265
	Median	0.852	0.705	0.589	0.495	0.418	0.355	0.303
	Upper 95%	0.863	0.719	0.610	0.524	0.454	0.400	0.354
900	Lower 95%	0.831	0.672	0.548	0.446	0.364	0.296	0.241
	Median	0.844	0.690	0.570	0.473	0.395	0.332	0.279
	Upper 95%	0.855	0.705	0.590	0.502	0.433	0.375	0.332
950	Lower 95%	0.821	0.657	0.526	0.424	0.340	0.274	0.222
	Median	0.836	0.675	0.552	0.453	0.374	0.310	0.258
	Upper 95%	0.848	0.691	0.574	0.480	0.408	0.351	0.304
1000	Lower 95%	0.810	0.639	0.507	0.405	0.322	0.257	0.205
	Median	0.827	0.661	0.532	0.431	0.352	0.288	0.237
	Upper 95%	0.840	0.677	0.555	0.461	0.387	0.325	0.278

Table A2_16.2. Razorbill, demographic rate set 2, counterfactuals of population size after 5 to 35 years, estimated using a non-matched runs method, from 1000 density dependent simulations.

Additional adult mortality	Counterfactual of population size at 5 year intervals							
	Estimate	yr.5	yr.10	yr.15	yr.20	yr.25	yr.30	yr.35
0	Lower 95%	1.000	1.000	1.000	1.000	1.000	1.000	1.000
	Median	1.000	1.000	1.000	1.000	1.000	1.000	1.000
	Upper 95%	1.000	1.000	1.000	1.000	1.000	1.000	1.000
50	Lower 95%	0.722	0.620	0.558	0.525	0.490	0.466	0.434
	Median	0.990	0.979	0.972	0.952	0.952	0.952	0.936
	Upper 95%	1.333	1.498	1.616	1.706	1.835	1.854	1.850
100	Lower 95%	0.714	0.599	0.558	0.516	0.471	0.455	0.449
	Median	0.978	0.965	0.933	0.917	0.903	0.894	0.905
	Upper 95%	1.321	1.483	1.559	1.637	1.755	1.837	1.782
150	Lower 95%	0.722	0.596	0.522	0.471	0.451	0.429	0.398
	Median	0.973	0.935	0.894	0.897	0.882	0.846	0.848
	Upper 95%	1.307	1.466	1.544	1.590	1.657	1.666	1.737
200	Lower 95%	0.694	0.584	0.499	0.446	0.447	0.416	0.374
	Median	0.965	0.920	0.874	0.849	0.836	0.802	0.789
	Upper 95%	1.298	1.439	1.554	1.571	1.598	1.585	1.546
250	Lower 95%	0.695	0.547	0.486	0.404	0.386	0.362	0.335
	Median	0.954	0.903	0.852	0.831	0.793	0.761	0.752
	Upper 95%	1.309	1.400	1.474	1.436	1.508	1.501	1.582
300	Lower 95%	0.699	0.559	0.492	0.440	0.400	0.353	0.336
	Median	0.937	0.892	0.845	0.791	0.753	0.727	0.702
	Upper 95%	1.280	1.370	1.433	1.451	1.473	1.425	1.386
350	Lower 95%	0.690	0.542	0.479	0.415	0.382	0.340	0.295
	Median	0.940	0.881	0.820	0.766	0.729	0.694	0.656

	Counterfactual of population size at 5 year intervals							
Additional adult mortality	Estimate	yr.5	yr.10	yr.15	yr.20	yr.25	yr.30	yr.35
	Upper 95%	1.292	1.369	1.431	1.359	1.418	1.361	1.345
400	Lower 95%	0.670	0.517	0.429	0.372	0.324	0.287	0.272
	Median	0.926	0.836	0.787	0.726	0.675	0.637	0.608
	Upper 95%	1.237	1.288	1.335	1.327	1.284	1.239	1.195
450	Lower 95%	0.662	0.527	0.431	0.374	0.327	0.287	0.265
	Median	0.920	0.829	0.757	0.703	0.661	0.611	0.567
	Upper 95%	1.262	1.293	1.324	1.302	1.320	1.265	1.230
500	Lower 95%	0.673	0.513	0.422	0.357	0.314	0.280	0.236
	Median	0.913	0.821	0.743	0.664	0.613	0.574	0.527
	Upper 95%	1.228	1.288	1.253	1.265	1.244	1.174	1.115
550	Lower 95%	0.664	0.513	0.413	0.339	0.284	0.250	0.221
	Median	0.905	0.798	0.708	0.642	0.590	0.534	0.490
	Upper 95%	1.215	1.249	1.191	1.164	1.135	1.065	1.007
600	Lower 95%	0.653	0.494	0.394	0.332	0.283	0.227	0.205
	Median	0.884	0.776	0.680	0.601	0.545	0.491	0.438
	Upper 95%	1.199	1.185	1.164	1.159	1.122	1.045	0.961
650	Lower 95%	0.645	0.492	0.389	0.329	0.265	0.224	0.181
	Median	0.885	0.772	0.665	0.589	0.529	0.478	0.426
	Upper 95%	1.199	1.201	1.178	1.107	1.085	0.990	0.945
700	Lower 95%	0.649	0.477	0.380	0.306	0.255	0.212	0.181
	Median	0.889	0.743	0.659	0.568	0.504	0.440	0.387
	Upper 95%	1.202	1.200	1.128	1.070	0.986	0.894	0.903
750	Lower 95%	0.639	0.463	0.353	0.287	0.240	0.189	0.161
	Median	0.865	0.735	0.626	0.544	0.473	0.417	0.366
	Upper 95%	1.220	1.185	1.092	0.995	0.962	0.889	0.798

	Counterfactual of population size at 5 year intervals							
Additional adult mortality	Estimate	yr.5	yr.10	yr.15	yr.20	yr.25	yr.30	yr.35
800	Lower 95%	0.608	0.452	0.343	0.285	0.222	0.182	0.152
	Median	0.862	0.720	0.605	0.513	0.434	0.372	0.323
	Upper 95%	1.188	1.106	1.073	0.966	0.869	0.830	0.703
850	Lower 95%	0.623	0.430	0.322	0.258	0.201	0.166	0.139
	Median	0.847	0.700	0.583	0.491	0.419	0.357	0.307
	Upper 95%	1.140	1.086	1.001	0.908	0.831	0.764	0.633
900	Lower 95%	0.606	0.433	0.319	0.241	0.187	0.154	0.124
	Median	0.847	0.687	0.561	0.465	0.391	0.323	0.273
	Upper 95%	1.154	1.108	1.013	0.883	0.824	0.702	0.666
950	Lower 95%	0.619	0.417	0.321	0.229	0.175	0.140	0.113
	Median	0.835	0.678	0.554	0.452	0.378	0.314	0.263
	Upper 95%	1.136	1.037	0.984	0.880	0.796	0.649	0.572
1000	Lower 95%	0.585	0.416	0.307	0.230	0.181	0.138	0.109
	Median	0.828	0.654	0.529	0.426	0.351	0.291	0.237
	Upper 95%	1.127	1.039	0.917	0.837	0.710	0.610	0.518

Table A2_16.3. Razorbill, demographic rate set 2, counterfactuals of population growth rate calculated between year 5 and year 35, using a matched runs method, from 1000 density dependent simulations.

Additional adult mortality	Lower 95%	Median	Upper 95%
0	1.000	1.000	1.000
50	0.998	0.998	0.999
100	0.996	0.997	0.997
150	0.994	0.995	0.996
200	0.992	0.993	0.994
250	0.990	0.991	0.993
300	0.987	0.989	0.991
350	0.985	0.988	0.990
400	0.983	0.985	0.988
450	0.981	0.984	0.986
500	0.978	0.982	0.985
550	0.976	0.979	0.983
600	0.974	0.977	0.981
650	0.972	0.975	0.979
700	0.969	0.973	0.977
750	0.967	0.971	0.975
800	0.964	0.968	0.973
850	0.962	0.966	0.971
900	0.959	0.964	0.969
950	0.957	0.962	0.967
1000	0.955	0.959	0.964

Table A2_16.4. Razorbill, demographic rate set 2, counterfactuals of population growth rate calculated between year 5 and year 35, using a non-matched runs method, from 1000 density dependent simulations.

Additional adult mortality	Lower 95%	Median	Upper 95%
0	1.000	1.000	1.000
50	0.973	0.998	1.023
100	0.973	0.997	1.021
150	0.972	0.995	1.019
200	0.970	0.993	1.017
250	0.967	0.992	1.016
300	0.968	0.990	1.013
350	0.962	0.988	1.011
400	0.961	0.986	1.009
450	0.959	0.985	1.011
500	0.956	0.981	1.006
550	0.955	0.980	1.003
600	0.952	0.977	1.003
650	0.951	0.976	1.000
700	0.949	0.973	1.000
750	0.946	0.972	0.997
800	0.944	0.968	0.994
850	0.943	0.967	0.991
900	0.939	0.963	0.990
950	0.935	0.962	0.988
1000	0.936	0.959	0.984

Table A2_17.1. Puffin, demographic rate set 1, counterfactuals of population size after 5 to 35 years, estimated using a matched runs method, from 1000 density independent simulations.

Additional adult mortality	Counterfactual of population size at 5 year intervals							
	Estimate	yr.5	yr.10	yr.15	yr.20	yr.25	yr.30	yr.35
0	Lower 95%	1.000	1.000	1.000	1.000	1.000	1.000	1.000
	Median	1.000	1.000	1.000	1.000	1.000	1.000	1.000
	Upper 95%	1.000	1.000	1.000	1.000	1.000	1.000	1.000
5	Lower 95%	0.989	0.977	0.964	0.952	0.940	0.928	0.916
	Median	0.990	0.978	0.965	0.953	0.941	0.929	0.917
	Upper 95%	0.991	0.979	0.967	0.954	0.942	0.930	0.919
10	Lower 95%	0.979	0.954	0.929	0.906	0.883	0.861	0.839
	Median	0.980	0.955	0.931	0.907	0.884	0.862	0.840
	Upper 95%	0.981	0.956	0.932	0.909	0.886	0.863	0.842
15	Lower 95%	0.969	0.932	0.897	0.863	0.830	0.799	0.769
	Median	0.970	0.933	0.898	0.864	0.832	0.800	0.770
	Upper 95%	0.971	0.935	0.900	0.866	0.833	0.802	0.772
20	Lower 95%	0.959	0.910	0.865	0.821	0.780	0.741	0.704
	Median	0.960	0.912	0.866	0.823	0.782	0.743	0.706
	Upper 95%	0.961	0.913	0.868	0.824	0.783	0.744	0.707
25	Lower 95%	0.949	0.889	0.834	0.782	0.733	0.688	0.645
	Median	0.950	0.891	0.835	0.783	0.735	0.689	0.646
	Upper 95%	0.951	0.892	0.837	0.785	0.736	0.691	0.648
30	Lower 95%	0.939	0.869	0.804	0.744	0.689	0.637	0.590
	Median	0.940	0.870	0.806	0.746	0.691	0.639	0.592
	Upper 95%	0.941	0.872	0.807	0.748	0.692	0.641	0.594
35	Lower 95%	0.929	0.849	0.775	0.708	0.647	0.591	0.540
	Median	0.930	0.850	0.777	0.710	0.649	0.593	0.542

	Counterfactual of population size at 5 year intervals							
Additional adult mortality	Estimate	yr.5	yr.10	yr.15	yr.20	yr.25	yr.30	yr.35
	Upper 95%	0.932	0.852	0.779	0.712	0.651	0.595	0.544
40	Lower 95%	0.919	0.829	0.747	0.674	0.608	0.548	0.494
	Median	0.921	0.831	0.749	0.676	0.610	0.550	0.496
	Upper 95%	0.922	0.832	0.751	0.678	0.612	0.552	0.498
45	Lower 95%	0.910	0.809	0.720	0.641	0.571	0.508	0.452
	Median	0.911	0.811	0.722	0.643	0.573	0.510	0.454
	Upper 95%	0.913	0.813	0.724	0.645	0.575	0.512	0.456
50	Lower 95%	0.900	0.791	0.694	0.610	0.536	0.471	0.413
	Median	0.902	0.793	0.696	0.612	0.538	0.473	0.415
	Upper 95%	0.903	0.794	0.698	0.614	0.540	0.475	0.417

Table A2_17.2. Puffin, demographic rate set 1, counterfactuals of population size after 5 to 35 years, estimated using a non-matched runs method, from 1000 density independent simulations.

Additional adult mortality	Counterfactual of population size at 5 year intervals							
	Estimate	yr.5	yr.10	yr.15	yr.20	yr.25	yr.30	yr.35
0	Lower 95%	1.000	1.000	1.000	1.000	1.000	1.000	1.000
	Median	1.000	1.000	1.000	1.000	1.000	1.000	1.000
	Upper 95%	1.000	1.000	1.000	1.000	1.000	1.000	1.000
5	Lower 95%	0.945	0.913	0.890	0.869	0.846	0.826	0.811
	Median	0.991	0.976	0.964	0.951	0.940	0.926	0.916
	Upper 95%	1.039	1.048	1.051	1.050	1.049	1.041	1.041
10	Lower 95%	0.936	0.896	0.864	0.825	0.797	0.769	0.743
	Median	0.979	0.953	0.929	0.906	0.881	0.858	0.836
	Upper 95%	1.024	1.015	1.008	0.993	0.983	0.961	0.945
15	Lower 95%	0.926	0.876	0.830	0.785	0.748	0.715	0.682
	Median	0.970	0.935	0.900	0.864	0.831	0.800	0.771
	Upper 95%	1.011	0.997	0.975	0.955	0.930	0.906	0.878
20	Lower 95%	0.919	0.853	0.795	0.741	0.697	0.660	0.623
	Median	0.959	0.912	0.868	0.823	0.783	0.743	0.705
	Upper 95%	1.008	0.980	0.944	0.913	0.869	0.839	0.801
25	Lower 95%	0.909	0.835	0.769	0.710	0.657	0.609	0.565
	Median	0.949	0.890	0.835	0.782	0.734	0.688	0.646
	Upper 95%	0.999	0.955	0.905	0.863	0.819	0.771	0.733
30	Lower 95%	0.895	0.814	0.744	0.677	0.622	0.565	0.522
	Median	0.939	0.870	0.804	0.745	0.689	0.637	0.590
	Upper 95%	0.986	0.927	0.876	0.824	0.769	0.719	0.670
35	Lower 95%	0.889	0.794	0.718	0.649	0.587	0.529	0.479
	Median	0.931	0.851	0.778	0.711	0.650	0.593	0.542

	Counterfactual of population size at 5 year intervals							
Additional adult mortality	Estimate	yr.5	yr.10	yr.15	yr.20	yr.25	yr.30	yr.35
	Upper 95%	0.973	0.912	0.844	0.780	0.721	0.668	0.616
40	Lower 95%	0.881	0.780	0.695	0.619	0.554	0.494	0.439
	Median	0.920	0.830	0.751	0.676	0.610	0.550	0.497
	Upper 95%	0.966	0.886	0.815	0.740	0.680	0.622	0.566
45	Lower 95%	0.874	0.759	0.666	0.589	0.518	0.455	0.400
	Median	0.911	0.811	0.723	0.645	0.574	0.511	0.455
	Upper 95%	0.956	0.869	0.782	0.701	0.638	0.573	0.515
50	Lower 95%	0.861	0.743	0.644	0.562	0.485	0.420	0.366
	Median	0.903	0.794	0.697	0.612	0.537	0.473	0.416
	Upper 95%	0.943	0.846	0.756	0.670	0.595	0.528	0.466

Table A2_17.3. Puffin, demographic rate set 1, counterfactuals of population growth rate calculated between year 5 and year 35, using a matched runs method, from 1000 density independent simulations.

Additional adult mortality	Lower 95%	Median	Upper 95%
0	1.000	1.000	1.000
5	0.997	0.997	0.997
10	0.995	0.995	0.995
15	0.992	0.992	0.992
20	0.990	0.990	0.990
25	0.987	0.987	0.987
30	0.985	0.985	0.985
35	0.982	0.982	0.982
40	0.979	0.980	0.980
45	0.977	0.977	0.977
50	0.974	0.974	0.975

Table A2_17.4. Puffin, demographic rate set 1, counterfactuals of population growth rate calculated between year 5 and year 35, using a non-matched runs method, from 1000 density independent simulations.

Additional adult mortality	Lower 95%	Median	Upper 95%
0	1.000	1.000	1.000
5	0.993	0.997	1.001
10	0.991	0.995	0.999
15	0.989	0.992	0.996
20	0.986	0.990	0.994
25	0.983	0.987	0.991
30	0.981	0.985	0.989
35	0.978	0.982	0.986
40	0.976	0.980	0.984
45	0.973	0.977	0.981
50	0.971	0.975	0.978

Table A2_18.1. Puffin, demographic rate set 1, counterfactuals of population size after 5 to 35 years, estimated using a matched runs method, from 1000 density dependent simulations.

Additional adult mortality	Counterfactual of population size at 5 year intervals							
	Estimate	yr.5	yr.10	yr.15	yr.20	yr.25	yr.30	yr.35
0	Lower 95%	1.000	1.000	1.000	1.000	1.000	1.000	1.000
	Median	1.000	1.000	1.000	1.000	1.000	1.000	1.000
	Upper 95%	1.000	1.000	1.000	1.000	1.000	1.000	1.000
5	Lower 95%	0.991	0.984	0.980	0.977	0.975	0.974	0.973
	Median	0.992	0.986	0.982	0.979	0.978	0.976	0.976
	Upper 95%	0.993	0.987	0.983	0.981	0.980	0.979	0.978
10	Lower 95%	0.982	0.968	0.959	0.953	0.950	0.948	0.947
	Median	0.983	0.969	0.961	0.955	0.952	0.950	0.949
	Upper 95%	0.984	0.970	0.962	0.957	0.954	0.952	0.951
15	Lower 95%	0.974	0.953	0.941	0.933	0.928	0.925	0.923
	Median	0.975	0.956	0.943	0.936	0.931	0.928	0.926
	Upper 95%	0.977	0.958	0.946	0.939	0.934	0.931	0.929
20	Lower 95%	0.964	0.937	0.920	0.910	0.903	0.898	0.895
	Median	0.966	0.939	0.923	0.912	0.906	0.902	0.899
	Upper 95%	0.967	0.941	0.925	0.915	0.909	0.904	0.902
25	Lower 95%	0.956	0.922	0.902	0.888	0.880	0.874	0.870
	Median	0.958	0.925	0.905	0.892	0.884	0.878	0.875
	Upper 95%	0.960	0.928	0.908	0.895	0.887	0.882	0.879
30	Lower 95%	0.948	0.908	0.882	0.866	0.856	0.849	0.844
	Median	0.950	0.910	0.886	0.870	0.860	0.853	0.849
	Upper 95%	0.952	0.913	0.889	0.874	0.864	0.858	0.853
35	Lower 95%	0.939	0.892	0.863	0.844	0.832	0.824	0.819
	Median	0.941	0.896	0.867	0.849	0.837	0.829	0.824

	Counterfactual of population size at 5 year intervals							
Additional adult mortality	Estimate	yr.5	yr.10	yr.15	yr.20	yr.25	yr.30	yr.35
	Upper 95%	0.943	0.898	0.871	0.852	0.841	0.833	0.828
40	Lower 95%	0.931	0.878	0.844	0.823	0.808	0.799	0.792
	Median	0.933	0.881	0.849	0.827	0.813	0.804	0.798
	Upper 95%	0.935	0.885	0.852	0.832	0.819	0.809	0.803
45	Lower 95%	0.923	0.863	0.825	0.801	0.785	0.773	0.766
	Median	0.925	0.867	0.830	0.806	0.790	0.780	0.772
	Upper 95%	0.927	0.870	0.834	0.811	0.795	0.785	0.778
50	Lower 95%	0.915	0.848	0.806	0.779	0.761	0.749	0.740
	Median	0.917	0.853	0.812	0.785	0.767	0.755	0.747
	Upper 95%	0.919	0.856	0.816	0.790	0.773	0.761	0.753

Table A2_18.2. Puffin, demographic rate set 1, counterfactuals of population size after 5 to 35 years, estimated using a non-matched runs method, from 1000 density dependent simulations.

Additional adult mortality	Counterfactual of population size at 5 year intervals							
	Estimate	yr.5	yr.10	yr.15	yr.20	yr.25	yr.30	yr.35
0	Lower 95%	1.000	1.000	1.000	1.000	1.000	1.000	1.000
	Median	1.000	1.000	1.000	1.000	1.000	1.000	1.000
	Upper 95%	1.000	1.000	1.000	1.000	1.000	1.000	1.000
5	Lower 95%	0.943	0.923	0.924	0.919	0.912	0.914	0.914
	Median	0.992	0.985	0.981	0.981	0.976	0.978	0.975
	Upper 95%	1.044	1.049	1.050	1.046	1.048	1.046	1.044
10	Lower 95%	0.933	0.912	0.902	0.895	0.895	0.890	0.886
	Median	0.983	0.969	0.960	0.956	0.953	0.950	0.949
	Upper 95%	1.033	1.034	1.026	1.022	1.018	1.016	1.013
15	Lower 95%	0.926	0.898	0.890	0.878	0.871	0.870	0.866
	Median	0.975	0.957	0.944	0.935	0.931	0.929	0.925
	Upper 95%	1.031	1.014	1.001	1.000	0.995	0.988	0.986
20	Lower 95%	0.916	0.885	0.866	0.855	0.852	0.843	0.844
	Median	0.967	0.941	0.923	0.913	0.907	0.904	0.901
	Upper 95%	1.021	0.997	0.985	0.972	0.967	0.966	0.959
25	Lower 95%	0.911	0.874	0.855	0.838	0.827	0.826	0.820
	Median	0.959	0.926	0.905	0.892	0.882	0.878	0.875
	Upper 95%	1.009	0.983	0.966	0.949	0.945	0.939	0.935
30	Lower 95%	0.902	0.858	0.832	0.817	0.809	0.797	0.797
	Median	0.950	0.911	0.886	0.870	0.859	0.854	0.850
	Upper 95%	1.000	0.969	0.942	0.927	0.916	0.909	0.908
35	Lower 95%	0.896	0.845	0.816	0.801	0.788	0.779	0.767
	Median	0.941	0.895	0.867	0.850	0.836	0.828	0.824

	Counterfactual of population size at 5 year intervals							
Additional adult mortality	Estimate	yr.5	yr.10	yr.15	yr.20	yr.25	yr.30	yr.35
	Upper 95%	0.990	0.949	0.922	0.903	0.894	0.886	0.878
40	Lower 95%	0.885	0.828	0.801	0.775	0.764	0.754	0.750
	Median	0.933	0.880	0.849	0.826	0.812	0.805	0.801
	Upper 95%	0.983	0.938	0.903	0.884	0.866	0.860	0.849
45	Lower 95%	0.880	0.818	0.778	0.754	0.746	0.731	0.723
	Median	0.924	0.866	0.831	0.806	0.790	0.781	0.774
	Upper 95%	0.976	0.925	0.888	0.864	0.845	0.836	0.826
50	Lower 95%	0.872	0.805	0.766	0.736	0.720	0.708	0.698
	Median	0.917	0.853	0.811	0.787	0.768	0.757	0.748
	Upper 95%	0.965	0.906	0.861	0.833	0.816	0.805	0.797

Table A2_18.3. Puffin, demographic rate set 1, counterfactuals of population growth rate calculated between year 5 and year 35, using a matched runs method, from 1000 density dependent simulations.

Additional adult mortality	Lower 95%	Median	Upper 95%
0	1.000	1.000	1.000
5	0.999	0.999	1.000
10	0.999	0.999	0.999
15	0.998	0.998	0.998
20	0.997	0.998	0.998
25	0.997	0.997	0.997
30	0.996	0.996	0.996
35	0.995	0.996	0.996
40	0.995	0.995	0.995
45	0.994	0.994	0.994
50	0.993	0.993	0.993

Table A2_18.4. Puffin, demographic rate set 1, counterfactuals of population growth rate calculated between year 5 and year 35, using a non-matched runs method, from 1000 density dependent simulations.

Additional adult mortality	Lower 95%	Median	Upper 95%
0	1.000	1.000	1.000
5	0.997	0.999	1.002
10	0.996	0.999	1.002
15	0.996	0.998	1.001
20	0.995	0.998	1.000
25	0.994	0.997	1.000
30	0.994	0.996	0.999
35	0.993	0.996	0.998
40	0.992	0.995	0.997
45	0.991	0.994	0.997
50	0.991	0.993	0.996

Table A2_19.1. Puffin, demographic rate set 2, counterfactuals of population size after 5 to 35 years, estimated using a matched runs method, from 1000 density independent simulations.

Counterfactual of population size at 5 year intervals								
Additional adult mortality	Estimate	yr.5	yr.10	yr.15	yr.20	yr.25	yr.30	yr.35
0	Lower 95%	1.000	1.000	1.000	1.000	1.000	1.000	1.000
	Median	1.000	1.000	1.000	1.000	1.000	1.000	1.000
	Upper 95%	1.000	1.000	1.000	1.000	1.000	1.000	1.000
5	Lower 95%	0.988	0.974	0.961	0.948	0.936	0.924	0.912
	Median	0.990	0.977	0.964	0.952	0.940	0.928	0.917
	Upper 95%	0.991	0.979	0.968	0.956	0.946	0.935	0.926
10	Lower 95%	0.978	0.952	0.927	0.903	0.879	0.856	0.834
	Median	0.980	0.955	0.931	0.907	0.884	0.862	0.840
	Upper 95%	0.981	0.957	0.933	0.910	0.888	0.866	0.844
15	Lower 95%	0.968	0.930	0.894	0.859	0.826	0.794	0.763
	Median	0.970	0.933	0.898	0.864	0.831	0.800	0.769
	Upper 95%	0.971	0.936	0.901	0.868	0.835	0.804	0.774
20	Lower 95%	0.957	0.908	0.862	0.818	0.776	0.736	0.698
	Median	0.960	0.912	0.866	0.823	0.781	0.742	0.705
	Upper 95%	0.962	0.915	0.869	0.826	0.785	0.747	0.709
25	Lower 95%	0.947	0.887	0.831	0.779	0.729	0.683	0.639
	Median	0.950	0.891	0.835	0.783	0.734	0.689	0.646
	Upper 95%	0.952	0.894	0.839	0.787	0.739	0.693	0.650
30	Lower 95%	0.937	0.866	0.801	0.740	0.684	0.633	0.585
	Median	0.940	0.870	0.805	0.745	0.690	0.639	0.591
	Upper 95%	0.943	0.873	0.810	0.750	0.695	0.644	0.596
35	Lower 95%	0.927	0.845	0.772	0.703	0.642	0.586	0.535
	Median	0.930	0.850	0.777	0.710	0.648	0.592	0.541

	Counterfactual of population size at 5 year intervals							
Additional adult mortality	Estimate	yr.5	yr.10	yr.15	yr.20	yr.25	yr.30	yr.35
	Upper 95%	0.933	0.854	0.781	0.714	0.654	0.597	0.546
40	Lower 95%	0.917	0.825	0.743	0.669	0.603	0.543	0.488
	Median	0.921	0.830	0.749	0.675	0.609	0.549	0.495
	Upper 95%	0.924	0.835	0.754	0.680	0.614	0.555	0.501
45	Lower 95%	0.907	0.806	0.716	0.636	0.565	0.502	0.446
	Median	0.911	0.811	0.722	0.643	0.572	0.509	0.453
	Upper 95%	0.915	0.816	0.727	0.648	0.577	0.514	0.458
50	Lower 95%	0.897	0.786	0.689	0.604	0.529	0.465	0.408
	Median	0.902	0.792	0.696	0.611	0.537	0.472	0.414
	Upper 95%	0.905	0.797	0.701	0.617	0.543	0.477	0.420

Table A2_19.2. Puffin, demographic rate set 2, counterfactuals of population size after 5 to 35 years, estimated using a non-matched runs method, from 1000 density independent simulations.

Additional adult mortality	Counterfactual of population size at 5 year intervals							
	Estimate	yr.5	yr.10	yr.15	yr.20	yr.25	yr.30	yr.35
0	Lower 95%	1.000	1.000	1.000	1.000	1.000	1.000	1.000
	Median	1.000	1.000	1.000	1.000	1.000	1.000	1.000
	Upper 95%	1.000	1.000	1.000	1.000	1.000	1.000	1.000
5	Lower 95%	0.654	0.517	0.446	0.395	0.351	0.307	0.299
	Median	0.983	0.999	0.989	0.984	0.959	0.948	0.943
	Upper 95%	1.458	1.732	2.060	2.236	2.603	2.922	3.017
10	Lower 95%	0.610	0.506	0.422	0.357	0.332	0.288	0.263
	Median	0.982	0.951	0.932	0.910	0.891	0.853	0.857
	Upper 95%	1.447	1.728	2.118	2.263	2.421	2.611	2.935
15	Lower 95%	0.625	0.517	0.417	0.351	0.321	0.268	0.238
	Median	0.964	0.927	0.919	0.863	0.846	0.803	0.770
	Upper 95%	1.409	1.716	1.935	2.225	2.315	2.560	2.956
20	Lower 95%	0.646	0.510	0.391	0.316	0.287	0.241	0.206
	Median	0.964	0.923	0.889	0.832	0.781	0.761	0.732
	Upper 95%	1.410	1.679	1.829	1.897	2.038	2.249	2.453
25	Lower 95%	0.600	0.467	0.406	0.312	0.274	0.225	0.185
	Median	0.940	0.896	0.843	0.780	0.739	0.688	0.649
	Upper 95%	1.404	1.613	1.766	2.010	2.005	2.097	2.234
30	Lower 95%	0.608	0.450	0.380	0.321	0.254	0.227	0.184
	Median	0.931	0.872	0.809	0.757	0.703	0.654	0.603
	Upper 95%	1.426	1.608	1.727	1.818	1.936	2.055	1.975
35	Lower 95%	0.609	0.458	0.357	0.275	0.235	0.195	0.161
	Median	0.923	0.851	0.787	0.713	0.644	0.587	0.540

	Counterfactual of population size at 5 year intervals							
Additional adult mortality	Estimate	yr.5	yr.10	yr.15	yr.20	yr.25	yr.30	yr.35
	Upper 95%	1.363	1.560	1.664	1.640	1.661	1.738	1.824
40	Lower 95%	0.600	0.443	0.355	0.280	0.214	0.174	0.148
	Median	0.915	0.859	0.756	0.683	0.610	0.562	0.510
	Upper 95%	1.344	1.550	1.607	1.721	1.737	1.722	1.764
45	Lower 95%	0.612	0.461	0.344	0.272	0.211	0.176	0.142
	Median	0.904	0.811	0.733	0.645	0.583	0.525	0.458
	Upper 95%	1.347	1.469	1.551	1.602	1.659	1.630	1.611
50	Lower 95%	0.590	0.441	0.334	0.259	0.209	0.162	0.121
	Median	0.888	0.781	0.699	0.608	0.541	0.481	0.426
	Upper 95%	1.314	1.487	1.505	1.482	1.412	1.374	1.376

Table A2_19.3. Puffin, demographic rate set 2, counterfactuals of population growth rate calculated between year 5 and year 35, using a matched runs method, from 1000 density independent simulations.

Additional adult mortality	Lower 95%	Median	Upper 95%
0	1.000	1.000	1.000
5	0.997	0.997	0.998
10	0.995	0.995	0.995
15	0.992	0.992	0.993
20	0.989	0.990	0.990
25	0.987	0.987	0.987
30	0.984	0.985	0.985
35	0.982	0.982	0.982
40	0.979	0.980	0.980
45	0.977	0.977	0.977
50	0.974	0.974	0.975

Table A2_19.4. Puffin, demographic rate set 2, counterfactuals of population growth rate calculated between year 5 and year 35, using a non-matched runs method, from 1000 density independent simulations.

Additional adult mortality	Lower 95%	Median	Upper 95%
0	1.000	1.000	1.000
5	0.963	0.999	1.037
10	0.959	0.996	1.035
15	0.958	0.993	1.035
20	0.951	0.991	1.029
25	0.953	0.988	1.027
30	0.950	0.986	1.026
35	0.946	0.983	1.020
40	0.945	0.981	1.019
45	0.939	0.978	1.015
50	0.940	0.975	1.012

Table A2_20.1. Puffin, demographic rate set 2, counterfactuals of population size after 5 to 35 years, estimated using a matched runs method, from 1000 density dependent simulations.

Additional adult mortality	Counterfactual of population size at 5 year intervals							
	Estimate	yr.5	yr.10	yr.15	yr.20	yr.25	yr.30	yr.35
0	Lower 95%	1.000	1.000	1.000	1.000	1.000	1.000	1.000
	Median	1.000	1.000	1.000	1.000	1.000	1.000	1.000
	Upper 95%	1.000	1.000	1.000	1.000	1.000	1.000	1.000
5	Lower 95%	0.988	0.976	0.965	0.956	0.946	0.939	0.930
	Median	0.990	0.979	0.970	0.961	0.954	0.947	0.941
	Upper 95%	0.991	0.981	0.973	0.966	0.960	0.955	0.951
10	Lower 95%	0.978	0.955	0.934	0.915	0.897	0.881	0.865
	Median	0.981	0.960	0.942	0.926	0.912	0.899	0.888
	Upper 95%	0.982	0.963	0.947	0.934	0.923	0.914	0.906
15	Lower 95%	0.967	0.933	0.902	0.874	0.848	0.824	0.801
	Median	0.971	0.940	0.913	0.889	0.868	0.850	0.834
	Upper 95%	0.973	0.944	0.921	0.902	0.886	0.872	0.861
20	Lower 95%	0.957	0.912	0.872	0.836	0.802	0.771	0.744
	Median	0.962	0.921	0.885	0.855	0.828	0.804	0.782
	Upper 95%	0.964	0.927	0.895	0.870	0.848	0.830	0.813
25	Lower 95%	0.947	0.891	0.841	0.797	0.757	0.719	0.686
	Median	0.952	0.901	0.857	0.819	0.786	0.756	0.730
	Upper 95%	0.955	0.908	0.870	0.840	0.813	0.793	0.773
30	Lower 95%	0.937	0.871	0.813	0.762	0.714	0.672	0.634
	Median	0.943	0.882	0.831	0.786	0.748	0.714	0.683
	Upper 95%	0.946	0.891	0.846	0.808	0.777	0.751	0.727
35	Lower 95%	0.926	0.850	0.783	0.722	0.670	0.624	0.581
	Median	0.934	0.864	0.805	0.754	0.709	0.671	0.638

	Counterfactual of population size at 5 year intervals							
Additional adult mortality	Estimate	yr.5	yr.10	yr.15	yr.20	yr.25	yr.30	yr.35
	Upper 95%	0.938	0.874	0.821	0.779	0.744	0.715	0.687
40	Lower 95%	0.916	0.830	0.756	0.690	0.633	0.580	0.535
	Median	0.924	0.845	0.778	0.722	0.673	0.630	0.592
	Upper 95%	0.929	0.856	0.798	0.746	0.706	0.672	0.642
45	Lower 95%	0.905	0.811	0.728	0.658	0.594	0.539	0.491
	Median	0.915	0.827	0.753	0.691	0.637	0.591	0.550
	Upper 95%	0.920	0.838	0.773	0.719	0.675	0.638	0.607
50	Lower 95%	0.895	0.789	0.701	0.625	0.559	0.502	0.450
	Median	0.906	0.810	0.730	0.662	0.604	0.554	0.511
	Upper 95%	0.911	0.822	0.751	0.691	0.645	0.607	0.571

Table A2_20.2. Puffin, demographic rate set 2, counterfactuals of population size after 5 to 35 years, estimated using a non-matched runs method, from 1000 density dependent simulations.

Additional adult mortality	Counterfactual of population size at 5 year intervals							
	Estimate	yr.5	yr.10	yr.15	yr.20	yr.25	yr.30	yr.35
0	Lower 95%	1.000	1.000	1.000	1.000	1.000	1.000	1.000
	Median	1.000	1.000	1.000	1.000	1.000	1.000	1.000
	Upper 95%	1.000	1.000	1.000	1.000	1.000	1.000	1.000
5	Lower 95%	0.716	0.612	0.559	0.525	0.501	0.490	0.455
	Median	0.985	0.966	0.967	0.963	0.957	0.961	0.943
	Upper 95%	1.420	1.628	1.711	1.734	1.861	1.901	1.942
10	Lower 95%	0.718	0.618	0.564	0.510	0.490	0.461	0.455
	Median	0.986	0.963	0.961	0.944	0.917	0.909	0.913
	Upper 95%	1.356	1.554	1.630	1.772	1.848	1.880	1.815
15	Lower 95%	0.683	0.581	0.512	0.480	0.444	0.424	0.398
	Median	0.979	0.956	0.932	0.904	0.877	0.869	0.851
	Upper 95%	1.331	1.478	1.633	1.611	1.682	1.765	1.740
20	Lower 95%	0.691	0.593	0.534	0.476	0.415	0.401	0.376
	Median	0.968	0.934	0.909	0.870	0.835	0.810	0.799
	Upper 95%	1.368	1.482	1.589	1.549	1.572	1.627	1.668
25	Lower 95%	0.685	0.550	0.497	0.439	0.410	0.369	0.335
	Median	0.954	0.908	0.868	0.817	0.785	0.763	0.732
	Upper 95%	1.337	1.455	1.462	1.499	1.554	1.542	1.541
30	Lower 95%	0.675	0.568	0.471	0.420	0.393	0.355	0.331
	Median	0.937	0.882	0.840	0.795	0.753	0.726	0.691
	Upper 95%	1.321	1.427	1.475	1.455	1.459	1.470	1.477
35	Lower 95%	0.665	0.532	0.433	0.379	0.350	0.314	0.293
	Median	0.937	0.857	0.815	0.768	0.727	0.694	0.655

	Counterfactual of population size at 5 year intervals							
Additional adult mortality	Estimate	yr.5	yr.10	yr.15	yr.20	yr.25	yr.30	yr.35
	Upper 95%	1.298	1.364	1.445	1.481	1.409	1.382	1.329
40	Lower 95%	0.671	0.518	0.446	0.396	0.338	0.309	0.276
	Median	0.918	0.837	0.771	0.712	0.675	0.635	0.601
	Upper 95%	1.312	1.378	1.404	1.406	1.349	1.281	1.231
45	Lower 95%	0.668	0.505	0.418	0.355	0.294	0.279	0.252
	Median	0.913	0.832	0.766	0.703	0.644	0.600	0.558
	Upper 95%	1.257	1.302	1.340	1.322	1.286	1.262	1.197
50	Lower 95%	0.654	0.497	0.403	0.341	0.292	0.262	0.223
	Median	0.910	0.810	0.732	0.670	0.609	0.561	0.509
	Upper 95%	1.272	1.330	1.295	1.258	1.189	1.174	1.122

Table A2_20.3. Puffin, demographic rate set 2, counterfactuals of population growth rate calculated between year 5 and year 35, using a matched runs method, from 1000 density dependent simulations.

Additional adult mortality	Lower 95%	Median	Upper 95%
0	1.000	1.000	1.000
5	0.998	0.998	0.999
10	0.996	0.997	0.997
15	0.994	0.995	0.996
20	0.991	0.993	0.994
25	0.989	0.991	0.993
30	0.987	0.989	0.991
35	0.985	0.987	0.990
40	0.982	0.985	0.988
45	0.980	0.983	0.986
50	0.977	0.981	0.985

Table A2_20.4. Puffin, demographic rate set 2, counterfactuals of population growth rate calculated between year 5 and year 35, using a non-matched runs method, from 1000 density dependent simulations.

Additional adult mortality	Lower 95%	Median	Upper 95%
0	1.000	1.000	1.000
5	0.975	0.998	1.022
10	0.975	0.997	1.021
15	0.971	0.995	1.018
20	0.969	0.994	1.018
25	0.967	0.991	1.015
30	0.966	0.990	1.016
35	0.962	0.988	1.011
40	0.961	0.986	1.009
45	0.958	0.984	1.009
50	0.957	0.981	1.006