An evaluation on four potential *SLA*s for West Greenland bowhead whales using the agreed evaluation and robustness trials

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INTRODUCTION

This paper provides results from the application of the software developed by Punt for the West Greenland bowhead whale trials as agreed at the AWMP Intersessional Workshop (IWC, 2014) to four potential *SLA*s.

To facilitate comparison across different *SLA*s in what is an initial analysis only, a summary statistic developed by Brandão and Butterworth (2013) to reflect the improvement in the performance achieved by a candidate *SLA* compared to the extreme of a *Strike Limit = Need* approach was used to select "best performing" *SLA* from the range of *SLA*s that were considered by Brandão and Butterworth (2013), two of which formed part of the 'reference *SLA*s' as given in IWC (2012). Variants of the selected *SLA* were than considered in an attempt to address shortcomings in the performance of that *SLA*.

*SLA*s CONSIDERED

Four *SLA*s are considered in this paper. One of these forms part of the 'reference *SLA*s' as given in IWC (2012) and is included here for to facilitate the comparison of the *SLA*s considered, while the three others are variants of another of these 'reference *SLA*s'. A fifth *SLA* which sets the *Strike Limit* equal to need is also considered, but its primary use is to provide a baseline to which to compare the performances of the other *SLA*s and is referred to as *SLA*0.

*SLA*1: Interim *SLA* which sets the *Strike Limit* as the lesser of need and $0.02\hat{N}e^{-1.645CV}$ where $\hat{N}$ is the most recent estimate of abundance and *CV* is the coefficient of variation of $\hat{N}$.

*SLA*2: Weighted-average interim *SLA* which uses all the abundance estimates and replaces $\hat{N}$ and *CV* in *SLA*1 by:

$$\hat{N} = \exp\left[\sum_i \frac{0.95^{t_i} \ln N_i}{CV_i^2} \Big/ \sum_i \frac{0.95^{t_i}}{CV_i^2} \right] \quad (1)$$

$$CV = \sqrt{\sum_i \frac{0.95^{2t_i}}{CV_i^2}} \Bigg/ \sum_i \frac{0.95^{t_i}}{CV_i^2} \qquad (2)$$

where N_i is the ith estimate of abundance, CV_i is the coefficient of variation of N_i, and t_i is the time (in years) between when the ith estimate of abundance was obtained and the first year of the block for which a *Strike Limit* is needed. The downweighting factor which reduces the weight of earlier compared to more recent abundance estimates is 0.95.

*SLA*3: Variant of *SLA*2 described above. This variant adjusts the 0.02 multiplier applied to $\hat{N}$ in *SLA*1 by a function of the observed trend of the abundance indices, so that the *Strike Limit* is set as the lesser of need and $0.02 f\left(\beta^*\right)\hat{N}e^{-1.645CV}$, where

$$f\left(\beta^*\right) = \alpha + (1-\alpha)\frac{1}{1+e^{\left(\beta^*-\bar{\beta}\right)/\delta}},$$

where

$\beta^* = \hat{\beta} - \lambda s_{\hat{\beta}}$, where $\hat{\beta}$ is the negative of the slope of the log-linear regression applied to the abundance indices, $s_{\hat{\beta}}$ is the standard error of the slope coefficient and λ is a control parameter, and

$\alpha, \bar{\beta}$, and δ are control parameters.

For this variant the following values are chosen for the control parameters:
$\alpha = 0.2, \bar{\beta} = 0.005, \delta = \bar{\beta}/3$, and $\lambda = 2$, which provide "large" changes in depletion values compared to *SAL*2 so that the resource is not reduced as much by strikes if MSYR is low. The function $f\left(\beta^*\right)$ is only calculated if there are more than three abundance indices; otherwise it is set to 1. Thus this approach allows for additional reduction of the strike limit if the time series of abundances shows a reasonably precise downward trend in abundance.

*SLA*4: Variant of *SLA*3 described above. In this variant the control parameters are set to:
$\alpha = 0.3, \bar{\beta} = 0.02, \delta = \bar{\beta}/5$, and $\lambda = 1$, which provide "lesser" changes in depletion values compared to *SLA*2.

RESULTS AND DISCUSSION

Table 1 gives the lower 5%-ile D1, D10 and N9 statistics for the bowhead trials for each of the four *SLA*s considered. Trials that show very poor performance in terms of relative increase in population size are highlighted. Note that Appendix A gives details of all the trials and need envelopes considered. Appendix B gives all the results for the more important statistics, as indicated in IWC 2014, for the four *SLA*s.

Unsurprisingly, Table 1 reflects that the trials showing poor results in terms of the lower 5%-ile D1 statistic are almost all associated with the lowest value of $MSYR_{1+}$ considered of 1% for bowheads. The *SLA* selected initially from a range of *SLA*s investigated by Brandão and Butterworth (2013) is *SLA*2. This was chosen in preference to alternative downweighting factors of 0.9 and 0.8 primarily because of better performance on need satisfaction. Although this *SLA* performs well in terms of need satisfaction, in terms of depletion values (D1) and relative increase in population size (D10), it performs poorly for some trials for the lowest $MSYR_{1+}$ value. The variants of this *SLA* considered were developed to try and improve on the relative increase in population size. This comes of course at the expense of need satisfaction (Table 1 and Figures 1-2).

ACKNOWLEDGMENT

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REFERENCES

Brandao, A. and Butterworth, D.S. 2013. An evaluation on four *SLA*s for West Greenland humpback and bowhead whales using the agreed evaluation and robustness trials. SC/65a/AWMP02.

International Whaling Commission. 2012. Report of the Fourth AWMP Workshop on the Development of *SLA*s for the Greenlandic Hunts.

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Table 1. Lower 5%-ile values for final depletion (D1), average need satisfaction (N9) and relative increase of 1+ population size (D10) for West Greenland bowhead whales. Results are shown for the four *SLA*s considered. For comparison, results setting catch equal need (*SL*0) are also given. Trials with a 5%-ile D10 value ≤ 0.5 for *SLA*2 are pink highlighted.

a) Evaluation Trials

	D1: Final depletion 1+ pop (5%)					N9: 5% Need satfn(100)					D10: Relative increase 1+ pop (5%)				
	SLA0	SLA1	SLA2	SLA3	SLA4	SLA0	SLA1	SLA2	SLA3	SLA4	SLA0	SLA1	SLA2	SLA3	SLA4
GB01AA	0.610	0.610	0.610	0.623	0.610	1.000	0.951	1.000	0.903	0.971	1.860	1.860	1.860	1.860	1.860
GB01AB	0.586	0.586	0.586	0.612	0.586	1.000	0.949	1.000	0.847	0.968	1.830	1.830	1.830	1.830	1.830
GB01BA	0.001	0.008	0.001	0.025	0.012	1.000	0.654	0.999	0.417	0.625	0.050	0.350	0.050	0.810	0.490
GB01BB	0.000	0.005	0.001	0.024	0.012	1.000	0.553	0.833	0.365	0.504	0.000	0.210	0.050	0.800	0.320
GB01CA	0.895	0.934	0.895	0.973	0.937	1.000	0.793	0.991	0.434	0.733	0.920	0.950	0.920	0.980	0.950
GB01CB	0.496	0.886	0.780	0.966	0.900	1.000	0.686	0.845	0.376	0.615	0.510	0.910	0.790	0.970	0.910
GB02AA	0.610	0.613	0.610	0.628	0.612	1.000	0.967	1.000	0.843	0.938	1.860	1.860	1.860	1.860	1.860
GB02AB	0.586	0.591	0.586	0.615	0.589	1.000	0.961	1.000	0.821	0.931	1.830	1.830	1.830	1.830	1.830
GB02BA	0.001	0.011	0.001	0.028	0.013	1.000	0.651	0.991	0.387	0.662	0.050	0.290	0.050	0.920	0.340
GB02BB	0.000	0.006	0.000	0.028	0.008	1.000	0.555	0.849	0.314	0.541	0.000	0.240	0.020	0.870	0.270
GB03AA	0.611	0.614	0.611	0.634	0.617	1.000	0.987	1.000	0.854	1.000	1.860	1.860	1.860	1.860	1.860
GB03AB	0.586	0.590	0.586	0.621	0.599	1.000	0.985	1.000	0.835	1.000	1.830	1.830	1.830	1.840	1.830
GB03BA	0.001	0.010	0.001	0.026	0.016	1.000	0.696	0.955	0.402	0.627	0.050	0.350	0.050	0.820	0.41
GB03BB	0.000	0.006	0.001	0.026	0.013	1.000	0.557	0.796	0.356	0.512	0.000	0.190	0.020	0.810	0.380
GB04AA	0.856	0.856	0.856	0.856	0.856	1.000	0.998	1.000	0.969	1.000	1.640	1.640	1.640	1.640	1.640
GB04AB	0.850	0.850	0.850	0.850	0.850	1.000	0.995	1.000	0.966	1.000	1.620	1.620	1.620	1.620	1.620
GB04BA	0.110	0.110	0.110	0.122	0.110	1.000	0.896	1.000	0.810	0.957	1.090	1.110	1.090	1.260	1.110
GB04BB	0.097	0.097	0.097	0.113	0.097	1.000	0.884	1.000	0.705	0.937	0.910	0.980	0.910	1.130	0.940
GB05AA	0.761	0.765	0.761	0.773	0.761	1.000	0.950	1.000	0.866	0.972	2.020	2.020	2.020	2.020	2.020
GB05AB	0.732	0.743	0.732	0.760	0.743	1.000	0.948	1.000	0.828	0.968	2.000	2.000	2.000	2.000	2.000
GB05BA	0.077	0.108	0.077	0.127	0.107	1.000	0.874	1.000	0.613	0.875	1.760	1.860	1.760	2.370	1.880
GB05BB	0.039	0.088	0.041	0.124	0.090	1.000	0.779	0.984	0.512	0.781	0.860	1.470	0.930	2.360	1.540
GB06AA	0.606	0.606	0.606	0.615	0.612	1.000	0.952	1.000	0.906	0.975	1.780	1.780	1.780	1.780	1.780
GB06AB	0.594	0.594	0.594	0.599	0.594	1.000	0.950	1.000	0.863	0.971	1.750	1.750	1.750	1.760	1.750
GB06BA	0.062	0.086	0.062	0.105	0.086	1.000	0.881	1.000	0.700	0.887	1.600	1.610	1.600	1.870	1.600
GB06BB	0.038	0.070	0.038	0.100	0.068	1.000	0.857	0.998	0.593	0.868	1.050	1.240	1.050	1.780	1.210
GB07AA	0.635	0.635	0.635	0.641	0.635	1.000	0.951	1.000	0.913	0.981	1.850	1.850	1.850	1.850	1.850
GB07AB	0.615	0.615	0.615	0.626	0.615	1.000	0.949	1.000	0.864	0.976	1.810	1.810	1.810	1.820	1.810
GB07BA	0.002	0.012	0.003	0.027	0.015	1.000	0.743	0.981	0.462	0.781	0.100	0.420	0.100	0.900	0.580
GB07BB	0.000	0.006	0.002	0.025	0.013	1.000	0.615	0.853	0.396	0.633	0.010	0.260	0.070	0.890	0.320
GB09AA	0.693	0.693	0.693	0.693	0.693	1.000	0.952	1.000	0.923	0.981	1.890	1.890	1.890	1.890	1.890
GB09AB	0.662	0.674	0.662	0.680	0.674	1.000	0.950	1.000	0.896	0.976	1.860	1.860	1.860	1.860	1.860
GB09BA	0.043	0.043	0.043	0.059	0.049	1.000	0.848	1.000	0.578	0.878	1.220	1.530	1.220	1.870	1.560
GB09BB	0.025	0.037	0.025	0.058	0.041	1.000	0.769	0.959	0.480	0.812	0.550	1.200	0.730	1.810	1.290
GB10AA	0.395	0.398	0.395	0.414	0.404	1.000	0.949	1.000	0.862	0.969	2.740	2.740	2.740	2.780	2.750
GB10AB	0.370	0.374	0.370	0.399	0.373	1.000	0.948	1.000	0.808	0.960	2.470	2.470	2.470	2.670	2.470
GB10BA	0.151	0.169	0.151	0.187	0.156	1.000	0.929	1.000	0.768	0.904	2.590	2.660	2.590	3.030	2.670
GB10BB	0.129	0.142	0.129	0.182	0.132	1.000	0.925	1.000	0.690	0.890	2.200	2.350	2.200	2.860	2.520

Table 1cont. Lower 5%-ile values for final depletion (D1), average need satisfaction (N9) and relative increase of 1+ population size (D10) for West Greenland bowhead whales. Results are shown for the four *SLA*s considered. For comparison, results setting catch equal need (*SL*0) is also given. Trials with a 5%-ile D10 value ≤ 0.5 for *SLA*2 are pink highlighted.

b) Robustness Trials

	D1: Final depletion 1+ pop (5%)					N9: 5% Need satfn(100)					D10: Relative increase 1+ pop (5%)				
	SLA0	SLA1	SLA2	SLA3	SLA4	SLA0	SLA1	SLA2	SLA3	SLA4	SLA0	SLA1	SLA2	SLA3	SLA4
GB21AA	0.438	0.438	0.438	0.441	0.438	1.000	0.951	1.000	0.883	0.971	1.010	1.010	1.010	1.010	1.010
GB21BA	0.001	0.008	0.001	0.025	0.012	1.000	0.654	0.999	0.417	0.625	0.050	0.350	0.050	0.720	0.490
GB22AA	0.262	0.265	0.262	0.293	0.279	1.000	0.951	1.000	0.871	0.969	1.600	1.600	1.600	1.610	1.600
GB22BA	0.000	0.000	0.000	0.000	0.000	1.000	0.484	0.873	0.362	0.445	0.000	0.000	0.000	0.000	0.000
GB23AA	0.610	0.610	0.610	0.623	0.617	1.000	0.974	1.000	0.864	0.974	1.860	1.860	1.860	1.860	1.860
GB23BA	0.001	0.013	0.002	0.029	0.017	1.000	0.658	0.939	0.387	0.565	0.050	0.300	0.090	0.960	0.600
GB24AA	0.504	0.504	0.504	0.519	0.504	1.000	0.954	1.000	0.902	0.969	2.490	2.490	2.490	2.490	2.490
GB24BA	0.921	0.921	0.921	0.922	0.921	1.000	0.979	1.000	0.943	1.000	2.830	2.830	2.830	2.830	2.830
GB25AA	0.469	0.469	0.469	0.469	0.469	1.000	0.937	1.000	0.893	0.970	2.720	2.720	2.720	2.720	2.720
GB25BA	0.051	0.068	0.052	0.101	0.068	1.000	0.842	1.000	0.531	0.854	0.490	0.980	0.500	1.950	1.020

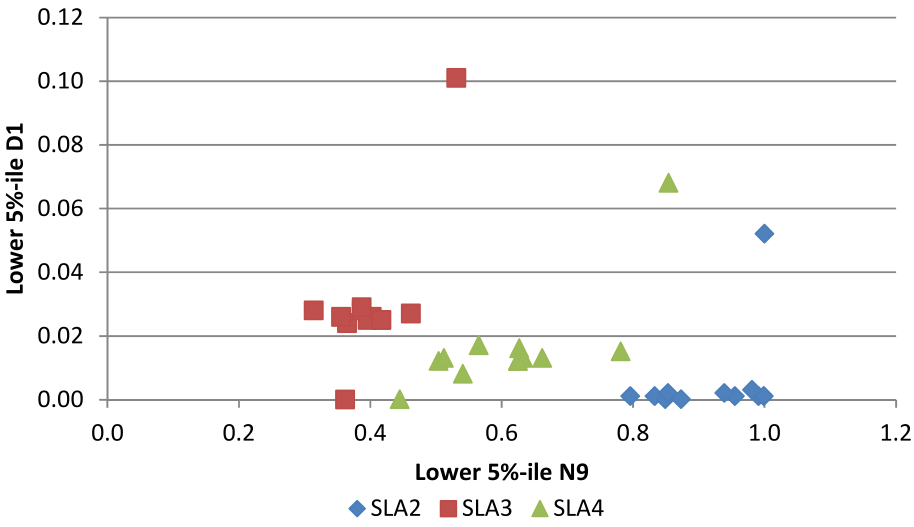

Figure 1. Plot of the lower 5%-ile average need satisfaction (N9) against the lower 5%-ile final depletion (D1) for three potential *SLA*s (*SLA*2, *SLA*3 and *SLA*4) for West Greenland bowhead whales for all of the highlighted trials in Table 1. Note that achieving less population reduction under low MSYR scenarios, some need satisfaction has to be sacrificed.

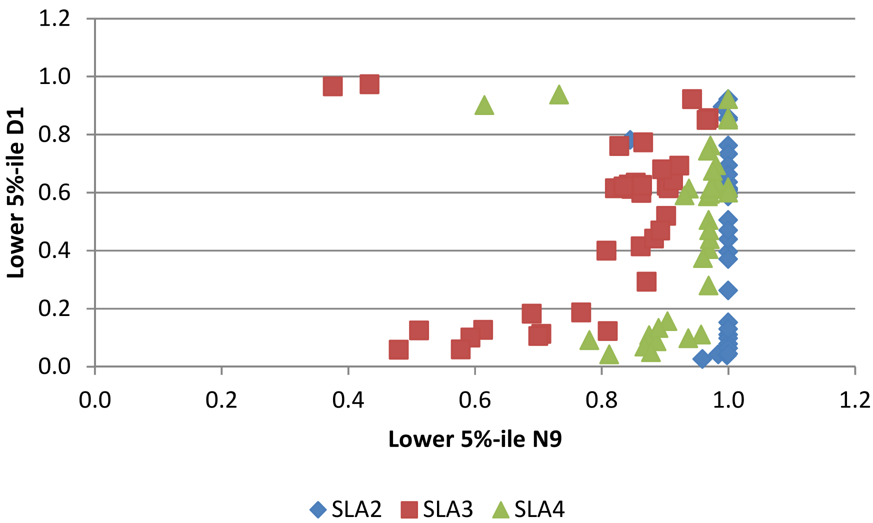

Figure 2. Plot of the lower 5%-ile average need satisfaction (N9) against the lower 5%-ile final depletion (D1) for three potential *SLA*s (*SLA*2, *SLA*3 and *SLA*4) for West Greenland bowhead whales for all of the non-highlighted trials in Table 1. Note here that achieving better recovery for some low MSYR trials (see Figure 1) leads to some loss of need satisfaction for trials with higher MSYR.

APPENDIX A

List of evaluation and robustness trials (see IWC, 2014, Table 5 and 6 of Annex D)

a) Evaluation trials for bowhead whales

Trial	Description	Conditioning
GB01AA	$MSYR_{1+}$ = 2.5%; need scenario A; survey frequency = 10; historic survey bias = 1	Yes [1A]
GB01AB	$MSYR_{1+}$ = 2.5%; need scenario B; survey frequency = 10; historic survey bias = 1	1A
GB01BA	$MSYR_{1+}$ = 1%; need scenario A; survey frequency = 10; historic survey bias = 1	Yes [1B]
GB01BB	$MSYR_{1+}$ = 1%; need scenario B; survey frequency = 10; historic survey bias = 1	1B
GB01CA	$MSYR_{1+}$ = 4% (and MSYL1+=0.8); need scenario A; survey frequency = 10; historic survey bias = 1	Yes [1C]
GB01CB	$MSYR_{1+}$ = 4% (and MSYL1+=0.8); need scenario B; survey frequency = 10; historic survey bias = 1	1C
GB02AA	$MSYR_{1+}$ = 2.5%; need scenario A; survey frequency = 5; historic survey bias = 1	1A
GB02AB	$MSYR_{1+}$ = 2.5%; need scenario B; survey frequency = 5; historic survey bias = 1	1A
GB02BA	$MSYR_{1+}$ = 1%; need scenario A; survey frequency = 5; historic survey bias = 1	1B
GB02BB	$MSYR_{1+}$ = 1%; need scenario B; survey frequency = 5; historic survey bias = 1	1B
GB03AA	$MSYR_{1+}$ = 2.5%; need scenario A; survey frequency = 15; historic survey bias = 1	1A
GB03AB	$MSYR_{1+}$ = 2.5%; need scenario B; survey frequency = 15; historic survey bias = 1	1A
GB03BA	$MSYR_{1+}$ = 1%; need scenario A; survey frequency = 15; historic survey bias = 1	1B
GB03BB	$MSYR_{1+}$ = 1%; need scenario B; survey frequency = 15; historic survey bias = 1	1B
GB04AA	$MSYR_{1+}$ = 2.5%; need scenario A; survey frequency = 10; historic survey bias = 0.5	Yes [4A]
GB04AB	$MSYR_{1+}$ = 2.5%; need scenario B; survey frequency = 10; historic survey bias = 0.5	4A
GB04BA	$MSYR_{1+}$ = 1%; need scenario A; survey frequency = 10; historic survey bias = 0.5	Yes [4B]
GB04BB	$MSYR_{1+}$ = 1%; need scenario B; survey frequency = 10; historic survey bias = 0.5	4B
GB05AA	$MSYR_{1+}$ = 2.5%; need scenario A; survey frequency = 10; historic survey bias = 1; 3 episodic events	1A
GB05AB	$MSYR_{1+}$ = 2.5%; need scenario B; survey frequency = 10; historic survey bias = 1; 3 episodic events	1A
GB05BA	$MSYR_{1+}$ = 1%; need scenario A; survey frequency = 10; historic survey bias = 1; 3 episodic events	1B
GB05BB	$MSYR_{1+}$ = 1%; need scenario B; survey frequency = 10; historic survey bias = 1; 3 episodic events	1B
GB06AA	$MSYR_{1+}$ = 2.5%; need scenario A; survey frequency = 10; historic survey bias = 1; stochastic events every 5 years	1A
GB06AB	$MSYR_{1+}$ = 2.5%; need scenario B; survey frequency = 10; historic survey bias = 1; stochastic events every 5 years	1A
GB06BA	$MSYR_{1+}$ = 1%; need scenario A; survey frequency = 10; historic survey bias = 1; stochastic events every 5 years	1B
GB06BB	$MSYR_{1+}$ = 1%; need scenario B; survey frequency = 10; historic survey bias = 1; stochastic events every 5 years	1B
GB07AA	$MSYR_{1+}$ = 2.5%; need scenario A; survey frequency = 10; historic survey bias = 1; alternative future Canadian catches B	1A
GB07AB	$MSYR_{1+}$ = 2.5%; need scenario B; survey frequency = 10; historic survey bias = 1; alternative future Canadian catches B	1A

GB07BA	$MSYR_{1+}$ = 1%; need scenario A; survey frequency = 10; historic survey bias = 1; alternative future Canadian catches B	1B
GB07BB	$MSYR_{1+}$ = 1%; need scenario B; survey frequency = 10; historic survey bias = 1; alternative future Canadian catches B	1B
GB09AA	$MSYR_{1+}$ = 2.5%; need scenario A; survey frequency = 10; historic survey bias = 1; alternative future Canadian catches D	1A
GB09AB	$MSYR_{1+}$ = 2.5%; need scenario B; survey frequency = 10; historic survey bias = 1; alternative future Canadian catches D	1A
GB09BA	$MSYR_{1+}$ = 1%; need scenario A; survey frequency = 10; historic survey bias = 1; alternative future Canadian catches D	1B
GB09BB	$MSYR_{1+}$ = 1%; need scenario A; survey frequency = 10; historic survey bias = 1; alternative future Canadian catches D	1B
GB10AA	$MSYR_{1+}$ = 2.5%; need scenario A; survey frequency = 10; historic survey bias = 1; asymmetric environmental stochasticity (depletion = 0.3)	Yes [1A,10A]
GB10AB	$MSYR_{1+}$ = 2.5%; need scenario B; survey frequency = 10; historic survey bias = 1; asymmetric environmental stochasticity (depletion = 0.3)	10A
GB10BA	$MSYR_{1+}$ = 1%; need scenario A; survey frequency = 10; historic survey bias = 1; asymmetric environmental stochasticity (depletion = 0.3)	Yes [1B,10B]
GB10BB	$MSYR_{1+}$ = 1%; need scenario A; survey frequency = 10; historic survey bias = 1; asymmetric environmental stochasticity (depletion = 0.3)	10B

b) Robustness trials for bowhead whales

Trial	Description	Conditioning
GB21AA	Linear decrease in *K*; $MSYR_{1+}$ = 2.5%; need scenario A	1A
GB21BA	Linear decrease in *K*; $MSYR_{1+}$ = 1%; need scenario A	1B
GB22AA	Linear increase in *M*; $MSYR_{1+}$ = 2.5%; need scenario A	1A
GB22BA	Linear increase in *M*; $MSYR_{1+}$ = 1%; need scenario A	1B
GB23AA	Strategic surveys; $MSYR_{1+}$ = 2.5%; need scenario A	1A
GB23BA	Strategic surveys; $MSYR_{1+}$ = 1%; need scenario A	1B
GB24AA	$MSYR_{1+}$ = 2.5%; need scenario A; survey frequency = 10; historic survey bias = 1; asymmetric environmental stochasticity (depletion = 0.15)	Yes [1A,10A*]
GB24BA	$MSYR_{1+}$ = 1%; need scenario A; survey frequency = 10; historic survey bias = 1; asymmetric environmental stochasticity (depletion = 0.15)	Yes [1B,10B*]
GB25AA	$MSYR_{1+}$ = 2.5%; need scenario A; survey frequency = 10; historic survey bias = 1; asymmetric environmental stochasticity (depletion = 0.6)	Yes [1A,10A*]
GB25BA	$MSYR_{1+}$ = 1%; need scenario A; survey frequency = 10; historic survey bias = 1; asymmetric environmental stochasticity (depletion = 0.6)	Yes [1B,10B*]

Description of the different need scenarios and alternative future Canadian catches (see IWC, 2014, Table 4 of Annex D) for bowhead whales

Need scenario	**Description**
A	Need envelop: [2,3,5 -> 5 over 100 years]
B	Need envelop: [2,3,5; 5 -> 10 over years 17-100]
Alternative future Canadian catches [**Bowheads only**]	
A	[5 -> 5 over 100 years]
B	[2-> 8 over 100 years]
C	[2 -> 2 over 100 years]

APPENDIX B

Further *SLA* results

Table B.1. The more important statistics for *SLA*1 (interim *SLA*). Robustness trials are yellow highlighted.

	D1: Final depletion 1+ pop			D1: Final depletion F pop			D8(0): Scaled Final 1+ pop size			D8(inc): Scaled Final 1+ pop size			D9: min mat fem pop level			D10:Relative increase 1+ pop			N9: Need satfn(20)			N9: Need satfn(100)			N12: Mean downstep		
	5%	Median	96%	5%	Median	96%	5%	Median	96%	5%	Median	96%	5%	Median	96%	5%	Median	96%	5%	Median	96%	5%	Median	96%	5%	Median	96%
GB01AA	0.61	0.88	0.96	0.34	0.67	0.87	0.75	0.93	0.98	0.86	0.96	0.99	136	250	493	1.86	13.12	22.48	0.91	1.00	1.00	0.95	1.00	1.00	0.00	0.00	0.00
GB01AB	0.59	0.87	0.95	0.33	0.65	0.84	0.72	0.91	0.97	0.83	0.95	0.98	136	250	493	1.83	12.88	22.15	0.91	1.00	1.00	0.95	1.00	1.00	0.00	0.00	0.00
GB01BA	0.01	0.10	0.42	0.00	0.06	0.29	0.09	0.40	0.67	0.16	0.57	0.79	32	277	483	0.35	1.64	2.61	0.77	1.00	1.00	0.65	0.95	1.00	0.00	0.03	0.17
GB01BB	0.01	0.08	0.34	0.00	0.05	0.23	0.05	0.32	0.61	0.11	0.46	0.70	8	260	483	0.21	1.31	2.36	0.77	1.00	1.00	0.55	0.91	1.00	0.00	0.06	0.20
GB01CA	0.93	0.97	0.99	0.36	0.58	0.73	0.93	0.97	0.99	0.95	0.98	0.99	111	261	570	0.95	0.98	1.00	0.83	1.00	1.00	0.79	0.96	1.00	0.00	0.03	0.12
GB01CB	0.89	0.96	0.98	0.26	0.49	0.65	0.89	0.96	0.98	0.90	0.97	0.99	78	219	481	0.91	0.97	0.99	0.83	1.00	1.00	0.69	0.89	1.00	0.00	0.07	0.18
GB02AA	0.61	0.88	0.96	0.34	0.67	0.87	0.75	0.93	0.97	0.86	0.96	0.99	136	250	493	1.86	13.10	22.48	0.87	1.00	1.00	0.97	1.00	1.00	0.00	0.00	0.03
GB02AB	0.59	0.87	0.95	0.33	0.65	0.84	0.72	0.91	0.97	0.83	0.95	0.98	136	250	493	1.83	12.86	22.15	0.87	1.00	1.00	0.96	1.00	1.00	0.00	0.00	0.02
GB02BA	0.01	0.10	0.42	0.01	0.06	0.30	0.07	0.39	0.67	0.16	0.57	0.80	27	277	483	0.29	1.61	2.63	0.72	1.00	1.00	0.65	0.96	1.00	0.00	0.04	0.21
GB02BB	0.01	0.08	0.35	0.00	0.04	0.23	0.06	0.32	0.62	0.12	0.46	0.71	17	260	483	0.24	1.28	2.38	0.72	1.00	1.00	0.56	0.91	1.00	0.00	0.08	0.28
GB03AA	0.61	0.88	0.96	0.34	0.67	0.87	0.75	0.93	0.97	0.86	0.96	0.99	136	250	493	1.86	13.08	22.48	1.00	1.00	1.00	0.99	1.00	1.00	0.00	0.00	0.02
GB03AB	0.59	0.87	0.95	0.33	0.65	0.84	0.72	0.91	0.97	0.83	0.95	0.98	136	250	493	1.83	12.84	22.14	1.00	1.00	1.00	0.99	1.00	1.00	0.00	0.00	0.01
GB03BA	0.01	0.10	0.41	0.01	0.06	0.29	0.09	0.40	0.67	0.19	0.57	0.80	34	277	483	0.35	1.62	2.58	1.00	1.00	1.00	0.70	0.97	1.00	0.00	0.02	0.16
GB03BB	0.01	0.08	0.34	0.00	0.05	0.22	0.04	0.33	0.61	0.10	0.48	0.70	0	259	483	0.19	1.31	2.32	1.00	1.00	1.00	0.56	0.90	1.00	0.00	0.05	0.18
GB04AA	0.86	0.96	0.99	0.67	0.86	0.94	0.93	0.98	0.99	0.97	0.99	1.00	309	567	975	1.64	7.51	16.07	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	0.00
GB04AB	0.85	0.96	0.98	0.66	0.84	0.93	0.92	0.98	0.99	0.96	0.99	0.99	309	567	975	1.62	7.47	15.92	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	0.00
GB04BA	0.11	0.28	0.73	0.08	0.20	0.59	0.49	0.69	0.87	0.66	0.82	0.93	309	559	1087	1.11	2.71	3.14	0.80	1.00	1.00	0.90	1.00	1.00	0.00	0.00	0.05
GB04BB	0.10	0.27	0.70	0.07	0.18	0.52	0.41	0.64	0.84	0.55	0.76	0.90	309	559	1087	0.98	2.51	3.02	0.80	1.00	1.00	0.88	1.00	1.00	0.00	0.00	0.08
GB05AA	0.77	1.02	1.06	0.47	0.90	1.10	0.80	0.97	0.99	0.89	0.98	1.00	137	237	471	2.02	14.92	28.31	0.89	1.00	1.00	0.95	1.00	1.00	0.00	0.00	0.03
GB05AB	0.74	1.01	1.05	0.44	0.87	1.07	0.77	0.96	0.99	0.87	0.98	0.99	137	237	471	2.00	14.87	27.95	0.89	1.00	1.00	0.95	1.00	1.00	0.00	0.00	0.02
GB05BA	0.11	0.45	1.06	0.05	0.23	0.81	0.27	0.64	0.93	0.40	0.78	0.96	112	244	433	1.86	5.69	15.20	0.80	1.00	1.00	0.87	1.00	1.00	0.00	0.00	0.09
GB05BB	0.09	0.40	1.02	0.04	0.20	0.77	0.19	0.59	0.92	0.32	0.73	0.95	106	244	433	1.47	5.15	14.46	0.80	1.00	1.00	0.78	0.98	1.00	0.00	0.01	0.10
GB06AA	0.61	0.88	0.94	0.34	0.69	0.85	0.78	0.95	0.98	0.88	0.98	0.99	137	252	496	1.78	12.85	22.99	0.91	1.00	1.00	0.95	1.00	1.00	0.00	0.00	0.00
GB06AB	0.59	0.87	0.94	0.33	0.66	0.84	0.76	0.94	0.98	0.86	0.96	0.99	137	252	496	1.75	12.74	22.53	0.91	1.00	1.00	0.95	1.00	1.00	0.00	0.00	0.00
GB06BA	0.09	0.34	0.88	0.05	0.18	0.60	0.31	0.65	0.89	0.48	0.79	0.94	146	271	484	1.61	4.62	10.83	0.82	1.00	1.00	0.88	1.00	1.00	0.00	0.00	0.06
GB06BB	0.07	0.32	0.84	0.04	0.16	0.55	0.23	0.60	0.87	0.34	0.73	0.93	146	271	484	1.24	4.32	10.63	0.82	1.00	1.00	0.86	1.00	1.00	0.00	0.00	0.08
GB07AA	0.64	0.89	0.96	0.36	0.68	0.86	0.78	0.93	0.97	0.87	0.97	0.99	136	250	493	1.85	13.25	22.92	0.91	1.00	1.00	0.95	1.00	1.00	0.00	0.00	0.00
GB07AB	0.62	0.87	0.95	0.34	0.66	0.84	0.75	0.92	0.97	0.85	0.95	0.98	136	250	493	1.81	13.06	22.53	0.91	1.00	1.00	0.95	1.00	1.00	0.00	0.00	0.00
GB07BA	0.01	0.11	0.42	0.01	0.06	0.30	0.10	0.43	0.69	0.20	0.58	0.80	37	277	483	0.42	1.76	2.71	0.78	1.00	1.00	0.74	0.98	1.00	0.00	0.01	0.15
GB07BB	0.01	0.08	0.36	0.00	0.05	0.24	0.06	0.35	0.62	0.12	0.48	0.71	12	266	483	0.26	1.42	2.45	0.78	1.00	1.00	0.62	0.93	1.00	0.00	0.04	0.18
GB09AA	0.69	0.91	0.98	0.41	0.71	0.89	0.85	0.96	0.98	0.90	0.97	0.99	136	250	493	1.89	13.72	24.69	0.91	1.00	1.00	0.95	1.00	1.00	0.00	0.00	0.00
GB09AB	0.67	0.90	0.97	0.38	0.70	0.86	0.83	0.94	0.98	0.87	0.96	0.99	136	250	493	1.86	13.54	24.06	0.91	1.00	1.00	0.95	1.00	1.00	0.00	0.00	0.00
GB09BA	0.04	0.15	0.61	0.03	0.10	0.45	0.37	0.64	0.80	0.44	0.69	0.83	153	280	483	1.53	2.52	3.24	0.80	1.00	1.00	0.85	1.00	1.00	0.00	0.00	0.09
GB09BB	0.04	0.14	0.52	0.02	0.08	0.37	0.30	0.54	0.75	0.36	0.59	0.78	139	279	483	1.20	2.19	3.02	0.80	1.00	1.00	0.77	0.96	1.00	0.00	0.01	0.12
GB10AA	0.40	0.85	1.12	0.24	0.53	0.98	0.60	0.85	1.00	0.73	0.91	1.01	166	293	577	2.74	9.89	15.91	0.87	1.00	1.00	0.95	1.00	1.00	0.00	0.00	0.02
GB10AB	0.37	0.83	1.10	0.23	0.50	0.93	0.56	0.82	1.00	0.68	0.89	1.01	166	293	577	2.47	9.60	15.65	0.87	1.00	1.00	0.95	1.00	1.00	0.00	0.00	0.02
GB10BA	0.17	0.43	1.05	0.09	0.27	0.76	0.48	0.71	0.95	0.67	0.83	0.98	146	254	494	2.66	6.72	9.31	0.81	1.00	1.00	0.93	1.00	1.00	0.00	0.00	0.03
GB10BB	0.14	0.41	1.03	0.08	0.25	0.70	0.42	0.67	0.93	0.56	0.79	0.96	146	254	494	2.35	6.24	9.02	0.81	1.00	1.00	0.93	1.00	1.00	0.00	0.00	0.04
GB21AA	0.44	0.52	0.53	0.30	0.49	0.56	0.86	0.96	0.98	0.92	0.98	0.99	136	250	473	1.01	7.94	15.98	0.91	1.00	1.00	0.95	1.00	1.00	0.00	0.00	0.00
GB21BA	0.01	0.10	0.34	0.00	0.06	0.25	0.09	0.42	0.69	0.16	0.60	0.81	32	273	483	0.35	1.53	2.55	0.77	1.00	1.00	0.65	0.95	1.00	0.00	0.03	0.17
GB22AA	0.27	0.61	0.83	0.16	0.41	0.63	0.59	0.86	0.94	0.75	0.92	0.97	136	250	493	1.60	8.84	15.24	0.90	1.00	1.00	0.95	1.00	1.00	0.00	0.00	0.00
GB22BA	0.00	0.01	0.06	0.00	0.00	0.04	0.00	0.16	0.45	0.00	0.31	0.62	0	21	278	0.00	0.14	0.54	0.77	1.00	1.00	0.48	0.79	0.98	0.01	0.13	0.25
GB23AA	0.61	0.88	0.96	0.34	0.67	0.87	0.75	0.93	0.97	0.86	0.96	0.99	136	250	493	1.86	13.12	22.48	0.95	1.00	1.00	0.97	1.00	1.00	0.00	0.00	0.00
GB23BA	0.01	0.10	0.45	0.00	0.06	0.29	0.07	0.39	0.67	0.16	0.57	0.79	16	277	483	0.30	1.52	2.58	0.86	1.00	1.00	0.66	0.99	1.00	0.00	0.01	0.20
GB24AA	0.50	0.87	0.96	0.29	0.66	0.85	0.70	0.93	0.97	0.82	0.96	0.99	165	274	523	2.49	11.08	19.21	0.93	1.00	1.00	0.95	1.00	1.00	0.00	0.00	0.02
GB24BA	0.92	0.97	0.99	0.72	0.88	0.94	0.94	0.98	0.99	0.97	0.99	1.00	167	292	486	2.83	13.59	29.18	0.97	1.00	1.00	0.98	1.00	1.00	0.00	0.00	0.00
GB25AA	0.47	0.89	1.05	0.27	0.61	0.92	0.71	0.91	0.99	0.84	0.95	1.00	154	269	487	2.72	12.62	20.79	0.83	1.00	1.00	0.94	1.00	1.00	0.00	0.00	0.01
GB25BA	0.07	0.19	0.47	0.04	0.12	0.32	0.19	0.54	0.75	0.32	0.70	0.86	104	274	477	0.98	3.06	4.30	0.81	1.00	1.00	0.84	1.00	1.00	0.00	0.00	0.10

Table B.2. The more important statistics for *SLA*2 (weighted-average). Robustness trials are yellow highlighted.

	D1: Final depletion 1+ pop			D1: Final depletion F pop			D8(0): Scaled Final 1+ pop size			D8(inc): Scaled Final 1+ pop size			D9: min mat fem pop level			D10:Relative increase 1+ pop			N9: Need satfn(20)			N9: Need satfn(100)			N12: Mean downstep		
	5%	Median	96%	5%	Median	96%	5%	Median	96%	5%	Median	96%	5%	Median	96%	5%	Median	96%	5%	Median	96%	5%	Median	96%	5%	Median	96%
GB01AA	0.61	0.88	0.96	0.34	0.67	0.87	0.75	0.93	0.98	0.86	0.96	0.99	136	250	493	1.86	13.12	22.48	0.91	1.00	1.00	0.95	1.00	1.00	0.00	0.00	0.00
GB01AB	0.59	0.87	0.95	0.33	0.65	0.84	0.72	0.91	0.97	0.83	0.95	0.98	136	250	493	1.83	12.88	22.15	0.91	1.00	1.00	0.95	1.00	1.00	0.00	0.00	0.00
GB01BA	0.01	0.10	0.42	0.00	0.06	0.29	0.09	0.40	0.67	0.16	0.57	0.79	32	277	483	0.35	1.64	2.61	0.77	1.00	1.00	0.65	0.95	1.00	0.00	0.03	0.17
GB01BB	0.01	0.08	0.34	0.00	0.05	0.23	0.05	0.32	0.61	0.11	0.46	0.70	8	260	483	0.21	1.31	2.36	0.77	1.00	1.00	0.55	0.91	1.00	0.00	0.06	0.20
GB01CA	0.93	0.97	0.99	0.36	0.58	0.73	0.93	0.97	0.99	0.95	0.98	0.99	111	261	570	0.95	0.98	1.00	0.83	1.00	1.00	0.79	0.96	1.00	0.00	0.03	0.12
GB01CB	0.89	0.96	0.98	0.26	0.49	0.65	0.89	0.96	0.98	0.90	0.97	0.99	78	219	481	0.91	0.97	0.99	0.83	1.00	1.00	0.69	0.89	1.00	0.00	0.07	0.18
GB02AA	0.61	0.88	0.96	0.34	0.67	0.87	0.75	0.93	0.97	0.86	0.96	0.99	136	250	493	1.86	13.10	22.48	0.87	1.00	1.00	0.97	1.00	1.00	0.00	0.00	0.03
GB02AB	0.59	0.87	0.95	0.33	0.65	0.84	0.72	0.91	0.97	0.83	0.95	0.98	136	250	493	1.83	12.86	22.15	0.87	1.00	1.00	0.96	1.00	1.00	0.00	0.00	0.02
GB02BA	0.01	0.10	0.42	0.01	0.06	0.30	0.07	0.39	0.67	0.16	0.57	0.80	27	277	483	0.29	1.61	2.63	0.72	1.00	1.00	0.65	0.96	1.00	0.00	0.04	0.21
GB02BB	0.01	0.08	0.35	0.00	0.04	0.23	0.06	0.32	0.62	0.12	0.46	0.71	17	260	483	0.24	1.28	2.38	0.72	1.00	1.00	0.56	0.91	1.00	0.00	0.08	0.28
GB03AA	0.61	0.88	0.96	0.34	0.67	0.87	0.75	0.93	0.97	0.86	0.96	0.99	136	250	493	1.86	13.08	22.48	1.00	1.00	1.00	0.99	1.00	1.00	0.00	0.00	0.02
GB03AB	0.59	0.87	0.95	0.33	0.65	0.84	0.72	0.91	0.97	0.83	0.95	0.98	136	250	493	1.83	12.84	22.14	1.00	1.00	1.00	0.99	1.00	1.00	0.00	0.00	0.01
GB03BA	0.01	0.10	0.41	0.01	0.06	0.29	0.09	0.40	0.67	0.19	0.57	0.80	34	277	483	0.35	1.62	2.58	1.00	1.00	1.00	0.70	0.97	1.00	0.00	0.02	0.16
GB03BB	0.01	0.08	0.34	0.00	0.05	0.22	0.04	0.33	0.61	0.10	0.48	0.70	0	259	483	0.19	1.31	2.32	1.00	1.00	1.00	0.56	0.90	1.00	0.00	0.05	0.18
GB04AA	0.86	0.96	0.99	0.67	0.86	0.94	0.93	0.98	0.99	0.97	0.99	1.00	309	567	975	1.64	7.51	16.07	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	0.00
GB04AB	0.85	0.96	0.98	0.66	0.84	0.93	0.92	0.98	0.99	0.96	0.99	0.99	309	567	975	1.62	7.47	15.92	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	0.00
GB04BA	0.11	0.28	0.73	0.08	0.20	0.59	0.49	0.69	0.87	0.66	0.82	0.93	309	559	1087	1.11	2.71	3.14	0.80	1.00	1.00	0.90	1.00	1.00	0.00	0.00	0.05
GB04BB	0.10	0.27	0.70	0.07	0.18	0.52	0.41	0.64	0.84	0.55	0.76	0.90	309	559	1087	0.98	2.51	3.02	0.80	1.00	1.00	0.88	1.00	1.00	0.00	0.00	0.08
GB05AA	0.77	1.02	1.06	0.47	0.90	1.10	0.80	0.97	0.99	0.89	0.98	1.00	137	237	471	2.02	14.92	28.31	0.89	1.00	1.00	0.95	1.00	1.00	0.00	0.00	0.03
GB05AB	0.74	1.01	1.05	0.44	0.87	1.07	0.77	0.96	0.99	0.87	0.98	0.99	137	237	471	2.00	14.87	27.95	0.89	1.00	1.00	0.95	1.00	1.00	0.00	0.00	0.02
GB05BA	0.11	0.45	1.06	0.05	0.23	0.81	0.27	0.64	0.93	0.40	0.78	0.96	112	244	433	1.86	5.69	15.20	0.80	1.00	1.00	0.87	1.00	1.00	0.00	0.00	0.09
GB05BB	0.09	0.40	1.02	0.04	0.20	0.77	0.19	0.59	0.92	0.32	0.73	0.95	106	244	433	1.47	5.15	14.46	0.80	1.00	1.00	0.78	0.98	1.00	0.00	0.01	0.10
GB06AA	0.61	0.88	0.94	0.34	0.69	0.85	0.78	0.95	0.98	0.88	0.98	0.99	137	252	496	1.78	12.85	22.99	0.91	1.00	1.00	0.95	1.00	1.00	0.00	0.00	0.00
GB06AB	0.59	0.87	0.94	0.33	0.66	0.84	0.76	0.94	0.98	0.86	0.96	0.99	137	252	496	1.75	12.74	22.53	0.91	1.00	1.00	0.95	1.00	1.00	0.00	0.00	0.00
GB06BA	0.09	0.34	0.88	0.05	0.18	0.60	0.31	0.65	0.89	0.48	0.79	0.94	146	271	484	1.61	4.62	10.83	0.82	1.00	1.00	0.88	1.00	1.00	0.00	0.00	0.06
GB06BB	0.07	0.32	0.84	0.04	0.16	0.55	0.23	0.60	0.87	0.34	0.73	0.93	146	271	484	1.24	4.32	10.63	0.82	1.00	1.00	0.86	1.00	1.00	0.00	0.00	0.08
GB07AA	0.64	0.89	0.96	0.36	0.68	0.86	0.78	0.93	0.97	0.87	0.97	0.99	136	250	493	1.85	13.25	22.92	0.91	1.00	1.00	0.95	1.00	1.00	0.00	0.00	0.00
GB07AB	0.62	0.87	0.95	0.34	0.66	0.84	0.75	0.92	0.97	0.85	0.95	0.98	136	250	493	1.81	13.06	22.53	0.91	1.00	1.00	0.95	1.00	1.00	0.00	0.00	0.00
GB07BA	0.01	0.11	0.42	0.01	0.06	0.30	0.10	0.43	0.69	0.20	0.58	0.80	37	277	483	0.42	1.76	2.71	0.78	1.00	1.00	0.74	0.98	1.00	0.00	0.01	0.15
GB07BB	0.01	0.08	0.36	0.00	0.05	0.24	0.06	0.35	0.62	0.12	0.48	0.71	12	266	483	0.26	1.42	2.45	0.78	1.00	1.00	0.62	0.93	1.00	0.00	0.04	0.18
GB09AA	0.69	0.91	0.98	0.41	0.71	0.89	0.85	0.96	0.98	0.90	0.97	0.99	136	250	493	1.89	13.72	24.69	0.91	1.00	1.00	0.95	1.00	1.00	0.00	0.00	0.00
GB09AB	0.67	0.90	0.97	0.38	0.70	0.86	0.83	0.94	0.98	0.87	0.96	0.99	136	250	493	1.86	13.54	24.06	0.91	1.00	1.00	0.95	1.00	1.00	0.00	0.00	0.00
GB09BA	0.04	0.15	0.61	0.03	0.10	0.45	0.37	0.64	0.80	0.44	0.69	0.83	153	280	483	1.53	2.52	3.24	0.80	1.00	1.00	0.85	1.00	1.00	0.00	0.00	0.09
GB09BB	0.04	0.14	0.52	0.02	0.08	0.37	0.30	0.54	0.75	0.36	0.59	0.78	139	279	483	1.20	2.19	3.02	0.80	1.00	1.00	0.77	0.96	1.00	0.00	0.01	0.12
GB10AA	0.40	0.85	1.12	0.24	0.53	0.98	0.60	0.85	1.00	0.73	0.91	1.01	166	293	577	2.74	9.89	15.91	0.87	1.00	1.00	0.95	1.00	1.00	0.00	0.00	0.02
GB10AB	0.37	0.83	1.10	0.23	0.50	0.93	0.56	0.82	1.00	0.68	0.89	1.01	166	293	577	2.47	9.60	15.65	0.87	1.00	1.00	0.95	1.00	1.00	0.00	0.00	0.02
GB10BA	0.17	0.43	1.05	0.09	0.27	0.76	0.48	0.71	0.95	0.67	0.83	0.98	146	254	494	2.66	6.72	9.31	0.81	1.00	1.00	0.93	1.00	1.00	0.00	0.00	0.03
GB10BB	0.14	0.41	1.03	0.08	0.25	0.70	0.42	0.67	0.93	0.56	0.79	0.96	146	254	494	2.35	6.24	9.02	0.81	1.00	1.00	0.93	1.00	1.00	0.00	0.00	0.04
GB21AA	0.44	0.52	0.53	0.30	0.49	0.56	0.86	0.96	0.98	0.92	0.98	0.99	136	250	473	1.01	7.94	15.98	0.91	1.00	1.00	0.95	1.00	1.00	0.00	0.00	0.00
GB21BA	0.01	0.10	0.34	0.00	0.06	0.25	0.09	0.42	0.69	0.16	0.60	0.81	32	273	483	0.35	1.53	2.55	0.77	1.00	1.00	0.65	0.95	1.00	0.00	0.03	0.17
GB22AA	0.27	0.61	0.83	0.16	0.41	0.63	0.59	0.86	0.94	0.75	0.92	0.97	136	250	493	1.60	8.84	15.24	0.90	1.00	1.00	0.95	1.00	1.00	0.00	0.00	0.00
GB22BA	0.00	0.01	0.06	0.00	0.00	0.04	0.00	0.16	0.45	0.00	0.31	0.62	0	21	278	0.00	0.14	0.54	0.77	1.00	1.00	0.48	0.79	0.98	0.01	0.13	0.25
GB23AA	0.61	0.88	0.96	0.34	0.67	0.87	0.75	0.93	0.97	0.86	0.96	0.99	136	250	493	1.86	13.12	22.48	0.95	1.00	1.00	0.97	1.00	1.00	0.00	0.00	0.00
GB23BA	0.01	0.10	0.45	0.00	0.06	0.29	0.07	0.39	0.67	0.16	0.57	0.79	16	277	483	0.30	1.52	2.58	0.86	1.00	1.00	0.66	0.99	1.00	0.00	0.01	0.20
GB24AA	0.50	0.87	0.96	0.29	0.66	0.85	0.70	0.93	0.97	0.82	0.96	0.99	165	274	523	2.49	11.08	19.21	0.93	1.00	1.00	0.95	1.00	1.00	0.00	0.00	0.02
GB24BA	0.92	0.97	0.99	0.72	0.88	0.94	0.94	0.98	0.99	0.97	0.99	1.00	167	292	486	2.83	13.59	29.18	0.97	1.00	1.00	0.98	1.00	1.00	0.00	0.00	0.00
GB25AA	0.47	0.89	1.05	0.27	0.61	0.92	0.71	0.91	0.99	0.84	0.95	1.00	154	269	487	2.72	12.62	20.79	0.83	1.00	1.00	0.94	1.00	1.00	0.00	0.00	0.01
GB25BA	0.07	0.19	0.47	0.04	0.12	0.32	0.19	0.54	0.75	0.32	0.70	0.86	104	274	477	0.98	3.06	4.30	0.81	1.00	1.00	0.84	1.00	1.00	0.00	0.00	0.10

Table B.3. The more important statistics for *SLA*3 (variant of weighted-average). Robustness trials are yellow highlighted.

	D1: Final depletion 1+ pop			D1: Final depletion F pop			D8(0): Scaled Final 1+ pop size			D8(inc): Scaled Final 1+ pop size			D9: min mat fem pop level			D10:Relative increase 1+ pop			N9: Need satfn(20)			N9: Need satfn(100)			N12: Mean downstep		
	5%	Median	96%	5%	Median	96%	5%	Median	96%	5%	Median	96%	5%	Median	96%	5%	Median	96%	5%	Median	96%	5%	Median	96%	5%	Median	96%
GB01AA	0.623	0.88	0.962	0.363	0.674	0.867	0.79	0.93	0.97	0.89	0.96	0.99	136	250	493	1.86	13.13	22.53	1.00	1.00	1.00	0.90	0.98	1.00	0.00	0.02	0.05
GB01AB	0.612	0.869	0.954	0.35	0.648	0.835	0.78	0.92	0.97	0.87	0.95	0.98	136	250	493	1.83	12.99	22.15	1.00	1.00	1.00	0.85	0.98	1.00	0.00	0.02	0.04
GB01BA	0.025	0.112	0.47	0.016	0.07	0.309	0.20	0.46	0.67	0.44	0.65	0.80	99	279	483	0.81	1.82	2.64	1.00	1.00	1.00	0.42	0.80	0.98	0.02	0.07	0.19
GB01BB	0.024	0.1	0.441	0.015	0.067	0.271	0.20	0.43	0.62	0.40	0.62	0.74	97	275	483	0.8	1.66	2.49	1.00	1.00	1.00	0.37	0.70	0.97	0.02	0.09	0.20
GB01CA	0.973	0.982	0.989	0.568	0.682	0.766	0.97	0.98	0.99	0.99	0.99	1.00	168	309	577	0.98	0.99	1	1.00	1.00	1.00	0.43	0.63	0.95	0.03	0.12	0.19
GB01CB	0.966	0.98	0.988	0.544	0.666	0.754	0.97	0.98	0.99	0.97	0.99	0.99	168	300	517	0.97	0.99	1	1.00	1.00	1.00	0.38	0.52	0.90	0.04	0.13	0.21
GB02AA	0.628	0.888	0.963	0.369	0.68	0.867	0.80	0.93	0.97	0.90	0.97	0.99	136	250	493	1.86	13.24	22.82	0.76	0.86	1.00	0.84	0.95	1.00	0.00	0.01	0.03
GB02AB	0.615	0.874	0.954	0.356	0.653	0.838	0.80	0.92	0.97	0.89	0.95	0.98	136	250	493	1.83	13.03	22.43	0.76	0.86	1.00	0.82	0.95	1.00	0.00	0.01	0.02
GB02BA	0.028	0.114	0.47	0.017	0.073	0.322	0.25	0.46	0.67	0.48	0.67	0.80	122	279	483	0.92	1.87	2.73	0.76	0.83	1.00	0.39	0.80	0.99	0.01	0.05	0.14
GB02BB	0.028	0.1	0.423	0.015	0.06	0.262	0.21	0.44	0.62	0.43	0.62	0.75	122	277	483	0.87	1.7	2.52	0.76	0.83	1.00	0.31	0.72	0.94	0.01	0.06	0.17
GB03AA	0.634	0.882	0.962	0.363	0.674	0.865	0.80	0.93	0.97	0.90	0.96	0.99	136	250	493	1.86	13.08	22.52	1.00	1.00	1.00	0.85	1.00	1.00	0.00	0.00	0.05
GB03AB	0.621	0.87	0.954	0.349	0.65	0.835	0.79	0.91	0.97	0.88	0.95	0.98	136	250	493	1.84	12.95	22.21	1.00	1.00	1.00	0.84	1.00	1.00	0.00	0.00	0.04
GB03BA	0.026	0.118	0.473	0.017	0.078	0.339	0.20	0.48	0.67	0.41	0.68	0.81	99	279	483	0.82	1.86	2.72	1.00	1.00	1.00	0.40	0.74	1.00	0.00	0.08	0.18
GB03BB	0.026	0.113	0.451	0.017	0.07	0.313	0.20	0.45	0.63	0.41	0.64	0.76	98	275	483	0.81	1.78	2.53	1.00	1.00	1.00	0.36	0.63	1.00	0.00	0.09	0.19
GB04AA	0.856	0.964	0.986	0.667	0.863	0.937	0.93	0.98	0.99	0.97	0.99	1.00	309	567	975	1.64	7.51	16.07	1.00	1.00	1.00	0.97	1.00	1.00	0.00	0.00	0.03
GB04AB	0.85	0.957	0.983	0.657	0.842	0.925	0.92	0.98	0.99	0.96	0.99	0.99	309	567	975	1.62	7.47	15.92	1.00	1.00	1.00	0.97	1.00	1.00	0.00	0.00	0.02
GB04BA	0.122	0.286	0.761	0.087	0.202	0.592	0.54	0.70	0.87	0.73	0.82	0.93	309	559	1087	1.26	2.68	3.15	1.00	1.00	1.00	0.81	0.98	1.00	0.00	0.02	0.09
GB04BB	0.113	0.27	0.702	0.077	0.184	0.545	0.51	0.65	0.84	0.65	0.77	0.90	309	559	1087	1.13	2.52	3.02	1.00	1.00	1.00	0.71	0.97	1.00	0.00	0.02	0.13
GB05AA	0.773	1.016	1.055	0.472	0.903	1.102	0.82	0.97	0.99	0.90	0.98	1.00	137	237	471	2.02	14.92	28.35	1.00	1.00	1.00	0.87	0.98	1.00	0.00	0.02	0.06
GB05AB	0.76	1.009	1.051	0.456	0.875	1.073	0.80	0.96	0.99	0.88	0.98	0.99	137	237	471	2.00	14.87	28.01	1.00	1.00	1.00	0.83	0.98	1.00	0.00	0.02	0.05
GB05BA	0.127	0.465	1.068	0.08	0.243	0.829	0.38	0.66	0.93	0.60	0.79	0.96	112	244	433	2.37	5.89	15.21	1.00	1.00	1.00	0.61	0.90	1.00	0.00	0.05	0.13
GB05BB	0.124	0.443	1.036	0.077	0.226	0.776	0.35	0.62	0.92	0.57	0.76	0.95	112	244	433	2.36	5.56	14.50	1.00	1.00	1.00	0.51	0.84	0.99	0.00	0.05	0.14
GB06AA	0.615	0.878	0.943	0.353	0.692	0.852	0.80	0.95	0.98	0.89	0.98	0.99	137	252	496	1.78	12.85	23.03	1.00	1.00	1.00	0.91	0.99	1.00	0.00	0.01	0.05
GB06AB	0.599	0.867	0.937	0.341	0.659	0.834	0.77	0.94	0.98	0.87	0.96	0.99	137	252	496	1.76	12.74	22.61	1.00	1.00	1.00	0.86	0.98	1.00	0.00	0.01	0.05
GB06BA	0.105	0.352	0.894	0.062	0.187	0.621	0.40	0.65	0.90	0.62	0.80	0.94	146	271	484	1.87	4.76	10.84	1.00	1.00	1.00	0.70	0.94	1.00	0.00	0.04	0.13
GB06BB	0.1	0.332	0.84	0.06	0.175	0.56	0.38	0.62	0.87	0.57	0.76	0.93	146	271	484	1.78	4.45	10.65	1.00	1.00	1.00	0.59	0.91	1.00	0.00	0.04	0.13
GB07AA	0.641	0.886	0.961	0.379	0.684	0.859	0.79	0.93	0.97	0.88	0.97	0.99	136	250	493	1.85	13.26	23.02	1.00	1.00	1.00	0.91	0.99	1.00	0.00	0.01	0.05
GB07AB	0.626	0.871	0.953	0.365	0.657	0.837	0.77	0.92	0.97	0.87	0.95	0.98	136	250	493	1.82	13.08	22.64	1.00	1.00	1.00	0.86	0.98	1.00	0.00	0.01	0.04
GB07BA	0.027	0.118	0.473	0.017	0.074	0.322	0.24	0.49	0.69	0.46	0.66	0.81	126	279	483	0.90	1.91	2.73	1.00	1.00	1.00	0.46	0.83	0.99	0.01	0.07	0.17
GB07BB	0.025	0.104	0.403	0.015	0.067	0.265	0.23	0.45	0.64	0.43	0.63	0.75	124	279	483	0.89	1.74	2.55	1.00	1.00	1.00	0.40	0.74	0.98	0.02	0.08	0.20
GB09AA	0.693	0.906	0.976	0.413	0.712	0.888	0.88	0.96	0.98	0.92	0.97	0.99	136	250	493	1.89	13.72	24.88	1.00	1.00	1.00	0.92	0.99	1.00	0.00	0.01	0.05
GB09AB	0.68	0.902	0.965	0.4	0.7	0.859	0.86	0.95	0.98	0.91	0.96	0.99	136	250	493	1.86	13.55	24.42	1.00	1.00	1.00	0.90	0.98	1.00	0.00	0.01	0.04
GB09BA	0.059	0.163	0.62	0.038	0.111	0.481	0.54	0.68	0.80	0.61	0.73	0.83	153	280	483	1.87	2.70	3.28	1.00	1.00	1.00	0.58	0.89	0.99	0.01	0.06	0.14
GB09BB	0.058	0.153	0.55	0.037	0.098	0.397	0.47	0.63	0.76	0.55	0.68	0.79	153	280	483	1.81	2.49	3.07	1.00	1.00	1.00	0.48	0.80	0.98	0.02	0.05	0.17
GB10AA	0.414	0.842	1.116	0.243	0.536	0.978	0.62	0.85	1.00	0.78	0.92	1.01	166	293	577	2.78	10.02	15.91	1.00	1.00	1.00	0.86	0.99	1.00	0.00	0.01	0.06
GB10AB	0.399	0.825	1.102	0.233	0.514	0.936	0.58	0.83	1.00	0.73	0.89	1.01	166	293	577	2.67	9.76	15.65	1.00	1.00	1.00	0.81	0.98	1.00	0.00	0.01	0.05
GB10BA	0.187	0.437	1.057	0.103	0.269	0.77	0.52	0.72	0.94	0.72	0.84	0.98	146	254	494	3.03	6.83	9.45	1.00	1.00	1.00	0.77	0.96	1.00	0.00	0.03	0.08
GB10BB	0.182	0.412	1.035	0.095	0.256	0.724	0.49	0.69	0.94	0.67	0.80	0.96	146	254	494	2.86	6.42	9.07	1.00	1.00	1.00	0.69	0.94	1.00	0.00	0.03	0.08
GB21AA	0.441	0.518	0.533	0.303	0.494	0.563	0.86	0.96	0.98	0.92	0.98	0.99	136	250	489	1.01	7.94	16.14	1.00	1.00	1.00	0.88	0.98	1.00	0.00	0.02	0.05
GB21BA	0.025	0.11	0.358	0.016	0.07	0.266	0.21	0.49	0.71	0.44	0.67	0.83	98	279	483	0.72	1.74	2.56	1.00	1.00	1.00	0.42	0.79	0.98	0.02	0.07	0.19
GB22AA	0.293	0.616	0.83	0.171	0.412	0.633	0.64	0.86	0.94	0.79	0.93	0.97	136	250	493	1.61	8.91	15.27	1.00	1.00	1.00	0.87	0.98	1.00	0.00	0.02	0.05
GB22BA	0	0.014	0.073	0	0.01	0.058	0.00	0.27	0.50	0.00	0.52	0.71	0	61	290	0.00	0.23	0.59	1.00	1.00	1.00	0.36	0.56	0.94	0.07	0.15	0.20
GB23AA	0.623	0.88	0.962	0.363	0.674	0.867	0.80	0.93	0.98	0.89	0.96	0.99	136	250	493	1.86	13.13	22.53	1.00	1.00	1.00	0.86	0.98	1.00	0.00	0.01	0.06
GB23BA	0.029	0.112	0.47	0.019	0.07	0.339	0.23	0.46	0.67	0.45	0.67	0.81	115	280	483	0.96	1.78	2.65	0.77	1.00	1.00	0.39	0.80	0.98	0.01	0.07	0.18
GB24AA	0.519	0.872	0.958	0.298	0.658	0.852	0.71	0.92	0.97	0.83	0.96	0.99	165	274	523	2.49	11.10	19.23	1.00	1.00	1.00	0.90	0.99	1.00	0.00	0.02	0.05
GB24BA	0.922	0.973	0.988	0.717	0.878	0.936	0.94	0.98	0.99	0.97	0.99	1.00	167	292	486	2.83	13.59	29.18	1.00	1.00	1.00	0.94	1.00	1.00	0.00	0.00	0.04
GB25AA	0.469	0.899	1.045	0.28	0.617	0.921	0.72	0.91	0.99	0.85	0.95	1.00	154	269	487	2.72	12.66	21.23	1.00	1.00	1.00	0.89	0.99	1.00	0.00	0.01	0.05
GB25BA	0.101	0.203	0.481	0.052	0.127	0.322	0.35	0.56	0.76	0.57	0.74	0.86	149	274	477	1.95	3.23	4.31	1.00	1.00	1.00	0.53	0.89	1.00	0.00	0.05	0.14

Table B.4. The more important statistics for *SLA*4 (variant of weighted-average). Robustness trials are yellow highlighted.

	D1: Final depletion 1+ pop			D1: Final depletion F pop			D8(0): Scaled Final 1+ pop size			D8(inc): Scaled Final 1+ pop size			D9: min mat fem pop level			D10:Relative increase 1+ pop			N9: Need satfn(20)			N9: Need satfn(100)			N12: Mean downstep		
	5%	Median	96%	5%	Median	96%	5%	Median	96%	5%	Median	96%	5%	Median	96%	5%	Median	96%	5%	Median	96%	5%	Median	96%	5%	Median	96%
GB01AA	0.61	0.88	0.96	0.34	0.67	0.87	0.75	0.93	0.97	0.86	0.96	0.99	136	250	493	1.86	13.08	22.48	1.00	1.00	1.00	0.97	1.00	1.00	0.00	0.00	0.03
GB01AB	0.59	0.87	0.95	0.33	0.65	0.84	0.72	0.91	0.97	0.83	0.95	0.98	136	250	493	1.83	12.85	22.15	1.00	1.00	1.00	0.97	1.00	1.00	0.00	0.00	0.03
GB01BA	0.01	0.10	0.40	0.01	0.06	0.28	0.11	0.40	0.67	0.24	0.56	0.79	49	277	483	0.49	1.54	2.61	1.00	1.00	1.00	0.63	1.00	1.00	0.00	0.00	0.17
GB01BB	0.01	0.08	0.34	0.00	0.04	0.22	0.08	0.31	0.61	0.13	0.44	0.70	10	256	483	0.32	1.24	2.36	1.00	1.00	1.00	0.50	0.95	1.00	0.00	0.03	0.17
GB01CA	0.94	0.97	0.99	0.39	0.58	0.73	0.94	0.97	0.99	0.95	0.98	0.99	114	256	566	0.95	0.98	1.00	1.00	1.00	1.00	0.73	0.97	1.00	0.00	0.03	0.12
GB01CB	0.90	0.95	0.98	0.25	0.46	0.62	0.90	0.95	0.98	0.91	0.96	0.98	89	208	481	0.91	0.96	0.99	1.00	1.00	1.00	0.62	0.91	1.00	0.00	0.05	0.15
GB02AA	0.61	0.88	0.96	0.34	0.67	0.87	0.76	0.93	0.97	0.88	0.96	0.99	136	250	493	1.86	13.16	22.48	0.81	1.00	1.00	0.94	1.00	1.00	0.00	0.00	0.02
GB02AB	0.59	0.87	0.95	0.33	0.65	0.84	0.74	0.91	0.97	0.86	0.95	0.98	136	250	493	1.83	12.96	22.15	0.81	1.00	1.00	0.93	1.00	1.00	0.00	0.00	0.02
GB02BA	0.01	0.10	0.42	0.01	0.06	0.30	0.08	0.39	0.67	0.18	0.57	0.79	31	277	483	0.34	1.61	2.61	0.80	0.93	1.00	0.66	0.97	1.00	0.00	0.01	0.12
GB02BB	0.01	0.07	0.34	0.00	0.04	0.23	0.07	0.30	0.61	0.12	0.44	0.70	0	253	483	0.27	1.23	2.37	0.80	0.93	1.00	0.54	0.95	1.00	0.00	0.01	0.14
GB03AA	0.62	0.88	0.96	0.34	0.67	0.87	0.75	0.93	0.97	0.86	0.96	0.99	136	250	493	1.86	13.08	22.48	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	0.00
GB03AB	0.60	0.87	0.95	0.33	0.65	0.84	0.73	0.91	0.97	0.84	0.95	0.98	136	250	493	1.83	12.84	22.14	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	0.00
GB03BA	0.02	0.10	0.40	0.01	0.06	0.28	0.10	0.40	0.67	0.23	0.59	0.79	39	277	483	0.41	1.65	2.58	1.00	1.00	1.00	0.63	1.00	1.00	0.00	0.00	0.15
GB03BB	0.01	0.08	0.34	0.00	0.05	0.22	0.10	0.34	0.60	0.16	0.48	0.70	14	260	483	0.38	1.31	2.32	1.00	1.00	1.00	0.51	0.92	1.00	0.00	0.02	0.18
GB04AA	0.86	0.96	0.99	0.67	0.86	0.94	0.93	0.98	0.99	0.97	0.99	1.00	309	567	975	1.64	7.51	16.07	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	0.00
GB04AB	0.85	0.96	0.98	0.66	0.84	0.93	0.92	0.98	0.99	0.96	0.99	0.99	309	567	975	1.62	7.47	15.92	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	0.00
GB04BA	0.11	0.28	0.73	0.08	0.20	0.59	0.48	0.69	0.87	0.65	0.82	0.93	309	559	1087	1.11	2.67	3.14	1.00	1.00	1.00	0.96	1.00	1.00	0.00	0.00	0.04
GB04BB	0.10	0.27	0.70	0.07	0.18	0.51	0.40	0.64	0.84	0.54	0.76	0.90	309	559	1087	0.94	2.47	3.02	1.00	1.00	1.00	0.94	1.00	1.00	0.00	0.00	0.04
GB05AA	0.76	1.02	1.06	0.47	0.90	1.10	0.80	0.97	0.99	0.89	0.98	1.00	137	237	471	2.02	14.92	28.31	1.00	1.00	1.00	0.97	1.00	1.00	0.00	0.00	0.03
GB05AB	0.74	1.01	1.05	0.44	0.87	1.07	0.78	0.96	0.99	0.86	0.98	0.99	137	237	471	2.00	14.87	27.95	1.00	1.00	1.00	0.97	1.00	1.00	0.00	0.00	0.03
GB05BA	0.11	0.45	1.06	0.06	0.23	0.81	0.29	0.64	0.93	0.46	0.77	0.96	108	244	433	1.88	5.72	15.20	1.00	1.00	1.00	0.88	1.00	1.00	0.00	0.00	0.07
GB05BB	0.09	0.41	1.02	0.05	0.21	0.77	0.23	0.58	0.92	0.35	0.71	0.95	105	244	433	1.54	5.19	14.46	1.00	1.00	1.00	0.78	1.00	1.00	0.00	0.00	0.06
GB06AA	0.61	0.88	0.94	0.34	0.69	0.85	0.78	0.95	0.98	0.88	0.98	0.99	137	252	496	1.78	12.85	22.99	1.00	1.00	1.00	0.98	1.00	1.00	0.00	0.00	0.03
GB06AB	0.59	0.87	0.94	0.33	0.66	0.83	0.76	0.94	0.98	0.86	0.96	0.99	137	252	496	1.75	12.74	22.53	1.00	1.00	1.00	0.97	1.00	1.00	0.00	0.00	0.02
GB06BA	0.09	0.34	0.88	0.05	0.18	0.60	0.33	0.64	0.89	0.50	0.79	0.94	146	271	484	1.60	4.62	10.83	1.00	1.00	1.00	0.89	1.00	1.00	0.00	0.00	0.06
GB06BB	0.07	0.31	0.84	0.04	0.16	0.55	0.25	0.59	0.87	0.37	0.73	0.93	145	271	484	1.21	4.27	10.63	1.00	1.00	1.00	0.87	1.00	1.00	0.00	0.00	0.05
GB07AA	0.64	0.89	0.96	0.36	0.68	0.86	0.78	0.93	0.97	0.87	0.97	0.99	136	250	493	1.85	13.22	22.92	1.00	1.00	1.00	0.98	1.00	1.00	0.00	0.00	0.02
GB07AB	0.62	0.87	0.95	0.34	0.66	0.84	0.75	0.92	0.97	0.84	0.95	0.98	136	250	493	1.81	13.02	22.53	1.00	1.00	1.00	0.98	1.00	1.00	0.00	0.00	0.02
GB07BA	0.02	0.11	0.41	0.01	0.06	0.29	0.13	0.42	0.69	0.27	0.58	0.80	58	277	483	0.58	1.66	2.71	1.00	1.00	1.00	0.78	1.00	1.00	0.00	0.00	0.14
GB07BB	0.01	0.08	0.35	0.00	0.05	0.23	0.08	0.33	0.61	0.13	0.45	0.71	12	256	483	0.32	1.33	2.45	1.00	1.00	1.00	0.63	0.97	1.00	0.00	0.01	0.16
GB09AA	0.69	0.91	0.98	0.41	0.71	0.89	0.85	0.96	0.98	0.90	0.97	0.99	136	250	493	1.89	13.70	24.59	1.00	1.00	1.00	0.98	1.00	1.00	0.00	0.00	0.02
GB09AB	0.67	0.90	0.97	0.38	0.70	0.86	0.83	0.94	0.98	0.87	0.96	0.99	136	250	493	1.86	13.51	23.98	1.00	1.00	1.00	0.98	1.00	1.00	0.00	0.00	0.02
GB09BA	0.05	0.15	0.60	0.03	0.10	0.44	0.41	0.63	0.80	0.47	0.68	0.83	153	280	483	1.56	2.49	3.24	1.00	1.00	1.00	0.88	1.00	1.00	0.00	0.00	0.07
GB09BB	0.04	0.14	0.52	0.02	0.08	0.36	0.32	0.53	0.75	0.37	0.57	0.78	144	279	483	1.29	2.12	3.02	1.00	1.00	1.00	0.81	1.00	1.00	0.00	0.00	0.10
GB10AA	0.40	0.84	1.12	0.24	0.53	0.98	0.61	0.85	1.00	0.74	0.91	1.01	166	293	577	2.75	9.89	15.91	1.00	1.00	1.00	0.97	1.00	1.00	0.00	0.00	0.03
GB10AB	0.37	0.82	1.10	0.23	0.50	0.93	0.56	0.82	1.00	0.68	0.89	1.01	166	293	577	2.47	9.60	15.65	1.00	1.00	1.00	0.96	1.00	1.00	0.00	0.00	0.03
GB10BA	0.16	0.43	1.05	0.09	0.26	0.76	0.48	0.71	0.95	0.65	0.83	0.98	146	254	494	2.67	6.65	9.31	1.00	1.00	1.00	0.90	1.00	1.00	0.00	0.00	0.04
GB10BB	0.13	0.40	1.03	0.08	0.24	0.70	0.41	0.67	0.93	0.55	0.78	0.96	146	254	494	2.52	6.24	9.02	1.00	1.00	1.00	0.89	1.00	1.00	0.00	0.00	0.03
GB21AA	0.44	0.52	0.53	0.30	0.49	0.56	0.86	0.96	0.98	0.92	0.98	0.99	136	250	473	1.01	7.93	15.94	1.00	1.00	1.00	0.97	1.00	1.00	0.00	0.00	0.03
GB21BA	0.01	0.09	0.34	0.01	0.06	0.25	0.12	0.41	0.69	0.25	0.57	0.81	49	273	483	0.49	1.50	2.55	1.00	1.00	1.00	0.63	1.00	1.00	0.00	0.00	0.17
GB22AA	0.28	0.61	0.83	0.16	0.41	0.63	0.59	0.86	0.94	0.75	0.93	0.97	136	250	493	1.60	8.78	15.24	1.00	1.00	1.00	0.97	1.00	1.00	0.00	0.00	0.03
GB22BA	0.00	0.01	0.05	0.00	0.00	0.04	0.00	0.14	0.44	0.00	0.27	0.61	0	18	262	0.00	0.12	0.51	1.00	1.00	1.00	0.45	0.86	1.00	0.00	0.07	0.19
GB23AA	0.62	0.88	0.96	0.35	0.67	0.87	0.75	0.93	0.97	0.86	0.96	0.99	136	250	493	1.86	13.08	22.48	1.00	1.00	1.00	0.97	1.00	1.00	0.00	0.00	0.02
GB23BA	0.02	0.10	0.45	0.01	0.06	0.30	0.14	0.39	0.67	0.27	0.56	0.79	70	277	483	0.60	1.54	2.59	0.82	1.00	1.00	0.57	1.00	1.00	0.00	0.00	0.14
GB24AA	0.50	0.87	0.96	0.29	0.66	0.85	0.70	0.92	0.97	0.83	0.96	0.99	165	274	523	2.49	11.08	19.13	1.00	1.00	1.00	0.97	1.00	1.00	0.00	0.00	0.03
GB24BA	0.92	0.97	0.99	0.72	0.88	0.94	0.94	0.98	0.99	0.97	0.99	1.00	167	292	486	2.83	13.59	29.18	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	0.00
GB25AA	0.47	0.89	1.05	0.27	0.61	0.92	0.71	0.91	0.99	0.84	0.95	1.00	154	269	487	2.72	12.62	20.79	1.00	1.00	1.00	0.97	1.00	1.00	0.00	0.00	0.04
GB25BA	0.07	0.19	0.46	0.04	0.12	0.32	0.20	0.54	0.75	0.33	0.70	0.86	107	274	477	1.02	3.03	4.30	1.00	1.00	1.00	0.85	1.00	1.00	0.00	0.00	0.07