We would like to thank reviewer 2 for the comprehensive feedback to the manuscript. Below, we copied reviewer's comments in bold, followed by our responses. The changes in the revision are shown in italic. Updated figures and tables are shown in the end of this document.

This study tested the applicability of MTE using natural assemblage of marine phytoplankton. The authors used FlowCAM to identify the size category of phytoplankton, however, this technique limited the tested size range between 10-300 um. Growth rate and mortality of natural assemblage of phytoplankton are controlled not only by intrinsic factors such as size but also other extrinsic factors such as nutrient and light for growth. Therefore, the apparent relationship between size and the rates might be influenced by the extrinsic factors, and it is not easy to find real scaling relationship. The authors used dilution technique to obtain the growth rates with or without nutrient limitation and grazing mortality. Possibility of light limitation was also minimized by on-board incubation (i.e.,exposing enough light). My main concerns on this ms is on the methodology. The size range of phytoplankton they examined was 10-300 um. The authors mentioned that the most grazing mortality of microphytoplankton is from microzooplankton. But, the examined microphytoplankton are too large for most microzooplankton (especially for ciliates and crustacean nauplii, and most dinoflagellates). The dominant grazers for the examined microphytoplankton in situ are probably macrozooplankton such as copepod. The bottle-sampled water for the dilution experiment might contain few mesozooplankton. The obtained mortality might be different from in situ mortality of the microphytoplankton.

We agree with this comment. However, while conducting dilution experiment, we collected the water sample directly from the ocean and did not pass through any filters. The density of predators should be the same as that in real environments. In addition, when distributing the seawater from 20 l container into 2.4 l bottles, we gently mixed the 20 l container from time to time in order to make sure the seawater inside it is well mixed. Accordingly, assuming the predator density in the ocean is well mixed, the grazing mortality of large individuals should not be changed.

However, we still include an additional paragraph in Discussion section (Sec. 4.3) to caveat our results.

" 4.3 Difficulties in testing the MTE in natural phytoplankton assemblages
While we tried our best to carry out the experiments in order to investigate the in situ phytoplankton dynamics to test the MTE, some possible incubation artifacts remain. As pointed by Dolan and McKeon (2005), the grazing behavior of microzooplankton could be altered by the dilution processes, especially in the most diluted treatments. The microzooplankton in most diluted treatment would grow slowly and display low grazing rate due to food limitation (Dolan et al., 2000). This could results in overestimatation of grazing mortality and underestimation of growth rate in community level. In addition, our bottle incubation could elimitate the already low density large predators that likely feed on large microphytoplankton. This elimination may mislead our observations. However, Landry and Calbet (2005) validate the dilution experiment by finding correspondence between rate estimates from dilution experiments and other isotopic assesments. Still, given relatively scarce studies on size-specific growth rate and grazing mortality, it is not clear how the technical issues of dilution experiments could affect the size-specific level investigation."

One of the results from this study is that "grazing mortality of phytoplankton is correlated with growth rate". However, zooplankton grazing is usually a function of prey concentration (Frost, 1972, Limnol. Oceanogr., 17, 805-815; Kiorboe and Saiz, 1995 MEPS 122: 135-145). Encounter possibility to prey which is the function of prey concentration is an essential factor control the feeding rate not only for mesozooplankton but also microzooplankton.

To clarify this issue, we conduct two regression analyses to investigate the relationships among the three, body size, size-specific growth rate (μ') and grazing mortality (m). First we regress the size-specific grazing mortality (m) on size-specific growth rate (μ') using GLMM (wuth stations as the randome effect). Second, we regress the residuals from size-specific grazing mortality GLMM on the residuals from size-specific growth rate GLMM (please see the following figure) using linear regression. Through these analyses, the effects of abudnace, size, variation among stations would have been partitioned out. We have updated the Method section (Sec. 2.5.4) in our revised manuscript.

" 2.5.4 Coupling between size-specific growth rate and grazing mortality
To further clarify the relationship among microphytoplankton body size, size-specific growth rate, and size-specific grazing mortality, we regressed the size-specific grazing mortality against size-specific growth rate, using GLMM with stations as the random effect. Moreover, in order to partition out the effect of body size, we additionaly implemented a linear regression model to regress the residuals from size-specific grazing mortality GLMM (of size-specific rate versus size with stations as random effects) against the residules from size-specific growth rate GLMM. By doing so, we aim to examine if the microphytoplankton grazing mortality and growth rate are coupled together within an assemblage regardless of body size. Note, the growth rates used here are those measured without nutrient amendments (μ') so that we investigated the real situation in nature. Nevertheless, the analysis on μ reveals qualitative similar conclusion."

By doing so, we have partitioned out the effect from stations (spatial and temporal variation of growth and mortality per se) and body size and abundance. Our results showed both regressions are significant (Fig. 4 in the end of this document). Thus, we conclude that grazing mortality depend on growth rate within an assemblage. However, we still view this result with caution. We add in discussion:

"*Interestingly, m is coupled with size-specific growth rate, even accouting for size effects (Fig. 4b). We additionally regressed the residuals from m-μ GLMM against body size and confirmed that the size-specific grazing mortality was independent of body size (p=0.693). This nonsignificant relationship again leads us to conclude that the size-specific grazing mortality mainly depends on the size-specific growth rate but not on body size. This finding is cosnsitent with previous studies indicating that the microphytoplankton size-specific grazing mortality is size independent (McManus et al., 2007; Gutiérrez-Rodríguez et al., 2009; Gutiérrez-Rodríguez et al., 2011). In conclusion, our study suggests that microphytoplankton growth rate might be the most essential characteristic influencing the microzooplankton prey selection behavior (Burkill et al., 1987; Gaul and Antia, 2001; Strom, 2002; Strom and Welschmeyer, 1991; Lie and Wong, 2010), at least in the ECS. Nevertheless, we still caution our interpretation because body size and size-specific growth rates show a significant, however small, positive relationship (Table 1)*."

The authors counted microphytoplankton cells only from 6-ml of sea water by means of FlowCAM. In 25% dilution bottle, the number of cells per 6-ml is 1/4 of ambient conditon. How many cells they counted for each size category, especially for large size categories? Repeatability? The information is essential to judge the accuracy of the growth and mortality rate from the dilution experiments.

We add an additional table in supplement B (Table B1). Table B1 includes (1) Average particles processed in T_0, (2) Particle density (ind./ml), (3) Biomass (μg/L), (4) Average p-value of dilution exp. across size classes, (5) NBSS slope, and (6) r^2 of NBSS.

There is only one station where we processed less than 100 particles in T_0 water sample to construct the NBSS and calculate the size-specific growth rate and grazing mortality. We processed at least 171 particles for other stations. We agree that the growth rate and grazing mortality of some large size classes could be uncertain. Therefore, we used only those size classes that exhibit positive growth rate or grazing mortality to conduct further analysis to increase reliability. However, passing only 6ml or 18 minutes limitation is an inevitable compromise in order to save time on board.

In addition, we have included additional analysie on reduced data sets, which is prepared to exclude the nonsignificant dilution experiments. The four reduced data sets are:

(1) size classes with the regression p-value larger than 0.25 in dilution experiments are removed

(2) stations with the regression p-value for the whole community larger than 0.25 are removed

(3) first removed the stations with the regression p-value for the whole community larger than 0.25 and then removed the size classes with the regression p-value larger than 0.25 in the remaining stations

(4) the stations with average regression p-value of all size classes larger than 0.25 in that station are removed

All four reduced data sets were used to conduct the same growth rate and grazing mortality scaling analysis, grazing mortality-growth rate coupling analysis and 9 unvariate correlation analyses. The results from reduced data sets are qualitively the same with the results of full data set. We also include the following statement in method section (sec. 2.5.7). Please see our Supplement C below for the results of four reduced data sets.

" 2.5.7 Further analyses to test the robustness of the results

Beacuse some stations could show nonsignificant regression results in dilution experiments, we prepared the following four reduced data sets to test the robustness of our results. For the first reduced data set, we removed the size classes with the regression p-value larger than 0.25 in dilution experiments, regardless whether the regression p-value in dilution experiments for the whole community is high or low. To prepare the second reduced data set, we removed the stations with the regression p-value for the whole community larger than 0.25. For the third set, we first removed the stations with the regression p-value for the whole community larger than 0.25 and then removed the size classes with the regression p-value larger than 0.25 in the remaining stations. The fourth set is prepared by removing the stations with average regression p-value of all size classes larger than 0.25 in that station. All the four reduced data sets were analyzed with the same manner as the procedure used for the whole data set."

Fig. 4 clearly showed that phytoplankton without nutrient addition was stressed with nutrient limitation. For further analysis of scaling factors, only the growth rates with nutrient addition should be used.

Thank you for this comment. We have re-done our analysis using only growth rate measured with nutrient amendments as suggested. Please also refer to the new Table 1.

Minor comments:

Page 16596 line 27: Is the silicic acid concentration (0.36 micro M) correct? If correct, all the diatoms and silicoflagellates in this study were silicic acid limited.

This concentration should be the nutrient quantity added into each incubation bottle to avoid nutrient limitation. Besides, all the background silicate concentration is higher than this value. The actual nutrient concentration should be the originally existing nutrient concentration in the environment plus the amount we added. We have reported the environmental data of each sampling station in our original supplement A (Table A1). However, to avoid confusion, we revised the sentence as following.

" Treatments with artificial nutrient amendment received 6.2 ml Guillard's (F/2) Marine Water Enrichment Solution (cat. No. G0154) and 20 μml NH4Cl (nutrient added into each incubation bottle: 3 μM NO3; 0.12 μM PO4; 0.36 μM SiO4; 3 μM NH4)."

Page 16596 line 13 Show the total number of data prior to removing data of negative values.

Thank you for this comment. We have included this information into our revised manuscript as follow. *"After removing negative values, 200 out of 312 (12 size classes in each of 26 stations) size classes (having both positive size-specific growth rate and grazing mortality) were left."*

Page 16597 It is not described how to treat the chain forming cells. For example, 10 um ESD cells with connecting 30 cells. Their intrinsic growth and mortality is ruled as small phytoplankton of 10 um but the grazing mortality is ruled as larger phytoplankton.

This issue has been considered. We classified this kind of particle into "colony small cells" category, and its conversion factor is log C = -0.353 + 0.864 * log V, where C is the biomass (pg) and V is the biovolume (μm^3). Such category is not dominating the phytoplankton community; thus, it is not supposed to affect the scaling analysis. To be safe, we had done another separate analysis removing such kind of chain-forming cells and found that size-specific growth rate and grazing mortality scaling did not differ sensibly from the values reported in our current manuscript.

We have included this statement in Result section (Sec. 3.1) as following, *"In addition, the conclusion on size-specific growth rate and grazing mortality scaling did not change when we remove the "colony small cells" category."*

Page 16603 line 10: Show the equation of the conversion and explain

The conversion factor is compiled by Marquis et al. (2011), and we should not copy their work. But, we have briefly explained it in method section (Sec. 2.4) as following: *"The conversion equation is $C = c*V^d$, where C is the cell carbon (pg), V is cell volume (μm^3), c is a coefficient and d is the size scaling exponent. Both c and d are listed in Marquis et al. (2011)."*

Page 16603 line 2 from the bottom: In general, chlorophyll specific light absorption coefficient is larger for small phytoplankton than large phytoplankton due to overlapping chlorophyll in the cell (packaging effect). Chl *a* specific light absorption of large phytoplankton can be 1/2-1/3 of small phytoplankton. Therefore, higher chlorophyll content per mass does not guarantee higher mass specific photosynthesis rate.

We agree with this comment. The package effect indeed hinders large phytoplankton to achieve high growth rate. Howerer, one other report also states that the pigments of large phytoplankton less suffer from light damage (Key et al 2010). The benefit of small phytoplankton in photosynthesis rate (due to less package effect) thus could be counteracted by the light damages. Moerover, our on-deck incubation provides sufficient light, so the package effect could play minor role in our experiment setting.

We discussed the reasons for the almost isometirc (slightly positive) scaling exponent. We listed the features of large microphytoplankton to compensate the geometrical constrains in (1) resuource aquisition and (2) transportation network in Discussion section (Sec. 4.1):

"4.1 Scaling of size-specific growth rate (μ) and mortality (m)
The scaling exponent of size-specific growth rate and mortality varies among stations (Fig. 3; Table B2); this finding does not support MTE. This result suggests there may be no universal scaling of size-specific growth rate and mortality in natural assemblages, as suggested by Glazier (2005). However interestingly, such variation could subsequently be used to explain the variation of NBSS slopes among stations (see Sec. 4.3).
Nevertheless, we still tried to estimate the average scaling using GLMM. The results of GLMM suggest a nearly isometric scaling of size-specific growth rate for natural microphytoplankton assembalges in the East China Sea (Table 1); again, this finding does not support MTE either. In fact, our observed general scaling exponent of 0.092 (result of GLMM) for size-specific growth rate could be converted to 1.092 for individual-specific growth rate. This value is comparable with the reported values of individual-specific metabolic rates observed in other studies, which ranged from 0.9 to 1.2 (Maranon, 2008; Maranon et al., 2007). Moreover, the 95% confidence interval of our individual-specific growth rate scaling exponent (1.056 to 1.123) is comparable to those calculated in Huete-Ortega et al. (2012), where the individual-specific carbon fixation rate is reported to range from 1.03 to 1.32. Together with the results of other studies showing isometric scaling between individual respiration and body size in other phytosynthetic plants (Reich et al., 2006), our results cast doubts on a ubiquitous negative one-quarter scaling rule (Brown et al., 2000; Cermeño et al., 2006; Niklas and Enquist, 2001) between size-specific rates and body size in natural phytoplankton assemblages.
Accroding to MTE, geometric constraints in resuource acquisition and transportation network lead to the observation of allometric scaling (-1/4 scaling exponent) (Banavar et al., 2002). However in our study, we found a nearly isometirc (slightly positive) size-specific growth rate scaling exponents. Such findings could stem from the following features possessed by the larger phytoplankton to overcome their geometric constraints. In terms of nutrient acquisition, large phytoplankton show isometrically scaling relationship between nutrient uptake rate and body size (Marañón et al., 2012). In terms of photosynthesis, large phytoplankton contain isometrically increased chloroplasts to body size ratio (Maranon et al., 2007). Also,

the large phytoplankton exhibit higher carbon fixation to chl a ratio (Huete-Ortega et al., 2011). Although the large phytolankton would suffer from package effect (Berner et al., 1989), they would subject less from light damage and are less susceptable to photoinactivation, which is commonly observed in small phytoplankton (Key et al., 2010). Besides, the large phytoplankton could overcome constraints of transportation network through the following strategies. Large phytoplankton could increase their vacuole size to elevate storage ability (Thingstad et al., 2005; Latasa et al., 2005; Stolte et al., 1994) and attain higher photosynthethic efficiencies (Cermeño et al., 2005). In conclusion, the isometric scaling of size-specific growth rate is possible under sufficient light and nutrient conditions. Note however, as the scaling exponent of size-specific growth rate vares among assemblages, we are not certain that our results clearly support the isometric scaling."

Page 16604 line 5-6: Explain more in detail the reason of species succession override the size effect.

This argument has been removed since size and species are somehow correlated and should not be ussed to explain the size effect.

Page 16605 Line 2-4 and line 4-6: The authors do not show a -1/4 power relationship between mortality and size. Also, the authors found correlation between body size and grazing mortality was just apparent and insignificant (Figs. 3 and 6). I do not follow how did the authors reach this suggestion from the results of this study (-1/4 power relationship between size and mortality is largely determined by intrinsic processes). Also, no evidences are shown to reach the statement of line 4-6.

The mortality measured in our study should only come from grazing process because the incubation condition is neither nutrient nor light limited. Such grazing process is the extrinsic process. McCoy and Gillooly, 2008 showed that mortality rates including both intrinsic (natural mortality) and extrinsic (disease, predation) processes shows -1/4 power relationship with size. In addition, we found no relationship between grazing (extrinsic mortality) and body size (please see page 1-3 for our deduction). Consequently, we deducted the -1/4 scaling exponents is this study is dominate by intrinsic processes.

The relationships among body size, size-specific growth rate and grazing mortality were discussed in Discussion section (Sec. 4.1) in our revised manuscript. "*For the size-specific grazing mortality (m), the analyses for each station reveal substantial variation among assemblages (Fig. 3b). In addition, the result of GLMM suggests that on average m is slightly positively depends on body size (Table 1). In either case, our findings do not follow -1/4 scaling exponent as suggested by MTE. This is not suprising because MTE predicts -1/4 scaling exponent for intrinsic mortailty but not for extrinsic mortality. Again, the mortality estimated from our experiments mainly comes from grazing but not intrinsic processes. While the scaling of size-specific mortality varies among assemblage, the results of GLMM suggest a very small scaling exponent (close to 0), implying that grazing mortaility of microphytoplankton may be independent of body size. Independence of size-specific grazing mortality to body size might have implications on the scaling of phytoplankton total mortality rate. Previous meta-analysis indicates that the phytoplankton total mortality rate (including both intrinsic and extrinsic mortality) shows a -1/4 power relationship between size-specific mortality and body size (McCoy and Gillooly, 2008). Given that the grazing mortality is independent of body size, we suggest that the -1/4 scaling of total mortality versus body size of*

phytoplankton is to a large extent determined by the intrinsic processes. Our results suggest that the extrinsic processes (e.g. grazing) may be independent of body size and may not contribute significantly to affecting the scaling of mortality in microphytoplankton. However again, as the scaling exponent of size-specific mortality varies among assemblages, we are not certain that our results clearly support the independent of size-specific mortaility and body size."

Fig. 2. I don't follow the fig. I do not think this fig helps readers to understand how to calculate growth and mortality.

This figure is the best I can do so far, and the calculation has been detailed in the Methods. Review 1 has no concern on this figure. We will like to hear suggestions from reviewers as to how to improve this. Or, if the reviewers feel this figure is not necessary, we will remove this figure in revision.

Table 1. Results of the generalized linear mixed effect model (GLMM) linking microphytoplankton size-specific growth rate (μ) and grazing mortality (m) with microphytoplankton body size (biomass). In GLMM, stations were considered as random effects.

Cruise	Coefficient (95% confidence interval)	SE	p-value
Overall GLMM: $Log_2(\mu) \sim Log_2$(phytoplankton biomass) +random effect (station)			
Over all	0.092 (0.056, 0.123)	0.015	<0.001
Within cruise:			
May 2010	0.175 (0.037, 0.317)	0.056	0.006
Dec. 2010	0.175 (0.111, 0.233)	0.026	<0.001
Jun. 2011	-0.031 (-0.059, 0.002)	0.013	0.025
Jul. 2011	0.011 (-0.059, 0.080)	0.027	0.692
Aug. 2011	0.075 (-0.013, 0.130)	0.032	0.026
Sep. 2011	0.101 (-0.014, 0.213)	0.053	0.070
Oct. 2011	0.233 (0.160, 0.318)	0.035	<0.001
Overall GLMM: $Log_2(m) \sim Log_2$(phytoplankton biomass) +random effect (station)			
Over all	0.113 (0.054, 0.172)	0.030	<0.001
Within cruise:			
May 2010	0.132 (-0.104, 0.312)	0.093	0.169
Dec. 2010	0.122 (-0.060, 0.244)	0.078	0.133
Jun. 2011	0.055 (-0.051, 0.161)	0.055	0.328
Jul. 2011	-0.068 (-0.162, -0.000)	0.031	0.033
Aug. 2011	0.078 (-0.080, 0.256)	0.111	0.486
Sep. 2011	0.271 (0.087, 0.397)	0.074	0.001
Oct. 2011	0.357 (0.265, 0.482)	0.050	<0.001

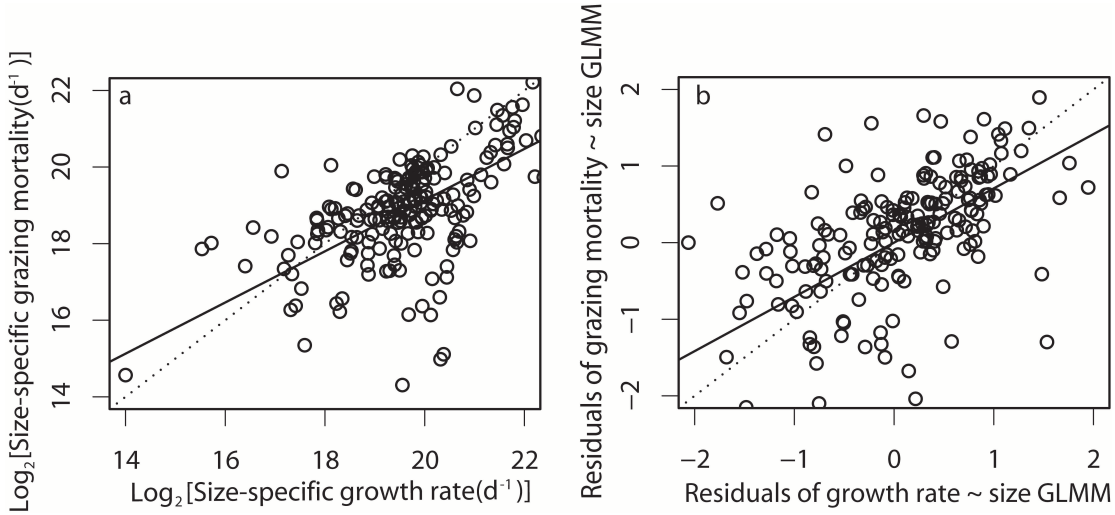

Figure 4. Scatter plot of log2 transformed size-specific grazing mortality (m) versus growth rate (μ'). Panel a shows the regression between size-specific grazing mortality and size-specific growth rate using GLMM (slope=0.668, p<0.001). Panel b shows the regression between the residuals from the size-specific grazing mortality GLMM against the residuals from the size-specific growth rate GLMM (slope =0.708, p<0.001). The solid line indicates the significant regression line, and the dashed line indicates the diagonal line.

Supplement B. Biological data of the sampling stations.

Table B1. Summary statistics for the dilution experiments and Normalized Biomass Size Spectra (NBSS).

Cruise	Station	Average particles processed in T_0	Particle density (ind./ml)	Biomass (μg/L)	Average p-value of dilution exp. across size classes	NBSS slope	r^2 of NSSS
May 2010	St. 1	6168	2694	188.539	0.402	-0.727	0.854*
May 2010	St. 5	7423	3448	192.977	0.293	-0.664	0.865*
May 2010	St. 9	5742	1985	199.861	0.082	-1.064	0.785*
Dec. 2010	St. 1	6563	2248	349.784	0.462	-1.470	0.964*
Dec. 2010	St. 5	2868	1071	161.569	0.264	-1.233	0.922*
Dec. 2010	St. 7	670	253	317.033	0.179	-0.635	0.857*
Dec. 2010	St. 9	690	266	161.564	0.150	-0.785	0.888*
Jun. 2011	St. 1	2771	735	1091.136	0.177	-0.754	0.965*
Jun. 2011	St. 2	14286	587	815.715	0.248	-0.570	0.665*
Jun. 2011	St. 5	443	130	763.249	0.074	-0.458	0.882*
Aug. 2011	St. 1	1669	513	1417.715	0.118	-0.673	0.953*
Aug. 2011	St. 3	1381	369	2252.591	0.085	-0.497	0.923*
Aug. 2011	St. 5	255	76	390.693	0.167	-0.533	0.846*
Aug. 2011	St. 11	468	169	76.721	0.128	-0.834	0.943*
Jul. 2011	St. E_1	220	65	75.035	0.205	-0.659	0.912*
Jul. 2011	St. E_12	71	28	27.098	0.290	-0.540	0.813*

Jul. 2011	St. E_19A	1364	547	384.590	0.183	-0.880	0.944*
Jul. 2011	St. E_29	922	369	349.928	0.068	-0.851	0.893*
Jul. 2011	St. E_30	9302	2939	4334.308	0.521	-0.813	0.882*
Sep. 2011	St. E_1	296	111	68.792	0.195	-0.644	0.913*
Sep. 2011	St. E_24	171	61	72.329	0.169	-0.675	0.860*
Sep. 2011	St. E_29	1299	450	299.164	0.460	-0.798	0.905*
Sep. 2011	St. E_30	3513	1243	281.763	0.089	-1.150	0.895*
Oct. 2011	St. 1	3520	1205	279.075	0.330	-1.190	0.874*
Oct. 2011	St. 7	946	342	105.449	0.224	-1.099	0.962*
Oct. 2011	St. 9	1206	443	151.017	0.373	-1.183	0.995*

*indicates significant NBSS slope

Supplement C. Results of four reduced data sets.

Table C1. Results of reduced data sets showing the general scaling relationship of size specific growth rate (μ) and grazing mortality (m) versus body size. In addition, the coupling of grazing mortality and growth rate is also examined. All the four reduced data sets show qualitatively consistent results as the whole data set.

Reduced data set 1	Estimate	SE	p-value	Reduced data set 2	Estimate	SE	p-value
μ - size GLMM	0.094	0.015	<0.001	μ - size GLMM	0.094	0.017	<0.001
m - size GLMM	0.137	0.018	<0.001	m - size GLMM	0.124	0.026	<0.001
m - μ GLMM	0.777	0.086	<0.001	m - μ GLMM	0.865	0.095	<0.001
residuals of m - size GLMM~ residuals of μ - size GLMM	0.441	0.065	<0.001	residuals of m - size GLMM~ residuals of μ - size GLMM	0.359	0.045	<0.001
Reduced data set 3	Estimate	SE	p-value	Reduced data set 4	Estimate	SE	p-value
μ - size GLMM	0.090	0.017	<0.001	μ - size GLMM	0.078	0.018	<0.001
m - size GLMM	0.138	0.019	<0.001	m - size GLMM	0.091	0.025	<0.001
m - μ GLMM	0.778	0.092	<0.001	m - μ GLMM	0.798	0.098	<0.001
residuals of m - size GLMM~ residuals of μ - size GLMM	0.480	0.073	<0.001	residuals of m - size GLMM~ residuals of μ - size GLMM	0.382	0.050	<0.001

Table C2. Results of univariate model analyses in the four reduced data sets. The results here are qualitatively the same as the results of the whole data set.

	Independent variables	Biological anticipation	Reduced data set 1		Reduced data set 2		Reduced data set 3		Reduced data set 4	
			Coefficient	p-value	Coefficient	p-value	Coefficient	p-value	Coefficient	p-value
Model 1	m_S	+	0.024	0.654	0.197	0.337	0.193	0.611	-0.006	0.515
Model 2	m_L	-	-0.073	0.082	-0.019	0.492	-0.045	0.090	-0.028	0.163
Model 3	μ_S'	-	0.163	0.997	0.342	0.990	0.245	0.924	0.196	0.928
Model 4	μ_L'	+	-0.090	0.929	-0.049	0.950	-0.077	0.995	-0.062	0.999
Model 5	I_S'	+	-0.057	0.909	-0.302	0.951	-0.257	0.904	-0.249	0.910
Model 6	I_L'	-	-0.051	0.367	0.016	0.552	-0.047	0.748	0.023	0.598
Model 7	m_S/m_L	+	0.085	0.035*	0.403	0.027*	0.415	0.061	0.277	0.058
Model 8	μ_S'/μ_L'	-	0.149	1.000	0.698	0.999	0.745	0.999	0.556	0.999
Model 9	I_S'/ I_L'	+	-0.028	0.736	-0.072	0.912	-0.097	0.866	-0.022	0.745

* indicates the model that gives biologically reasonable and significant result.