Supplementary File 6: statistics

Contents

This supplementary file contains summaries of the fitted models and corresponding fitted model coefficients and random effects. In each model summary table the number of parameters (k), log-likelihood (ll), AIC, or AICc (aic), difference between the minimal AIC/AICc and each AIC/AICc (deltaAIC), and model weights based on AIC/AICc (weights) are provided. For all tables maternal age is abbreviated to mAge and age at last observation is abbreviated to mAgeatLastObs. Where rows contain NAs, the model in question produced a singular fit indicating overfitting. Model coefficients are only shown for models with weight > 0.

For model coefficients, the model number (modelNumber) corresponds to the model number provided in the model summary tables. For fixed effects, the fitted value (est) is given wtih the lower and upper 95% confidence intervals.

All tables are in ascending order of AIC/AICc.

Probability of spontaneous abortion

Tables 1 to 3 provide a summary of the fitted models for the probability of abortion for the control, mating delay and nutritional stress treatments. AIC was used to assess model fits for the probability of abortion. For all treatments, including a random intercept and slope produced a singular fit and was therefore omitted from comparison.

Tables 4 to 6 provide the corresponding coefficients on a logit scale, and 95% confidence intervals, for models in tables 1 to 3. The random effect variances for the models including a random intercept were: control - 0.636, mating delay - 0.912, nutritional stress - 0.815.

Model fits

Table 1: Control treatment: model fits for the probability of abortion

modelNumber	model	k	ll	aic	deltaAIC	weights
2	abortion ~ mAge	2	-152.9947	309.9893	0.000	0.711
1	abortion ~ mAge + (1 | adults_id)	3	-152.8966	311.7933	1.804	0.289
3	abortion ~ 1	1	-195.7711	393.5423	83.553	0.000

Table 2: Mating delay treatment: model fits for the probability of abortion

modelNumber	model	k	ll	aic	deltaAIC	weights
2	abortion ~ mAge	2	-75.48788	154.9758	0.000	0.631
1	abortion ~ mAge + (1 | adults_id)	3	-75.02532	156.0506	1.075	0.368
3	abortion ~ 1	1	-83.00434	168.0087	13.033	0.001

Table 3: Nutritional stress treatment: model fits for the probability of abortion

modelNumber	model	k	ll	aic	deltaAIC	weights
1	abortion ~ mAge + (1 | adults_id)	3	-250.7058	507.4115	0.000	0.985
2	abortion ~ mAge	2	-255.9003	515.8006	8.389	0.015
3	abortion ~ 1	1	-284.8791	571.7582	64.347	0.000

Model coefficients - fixed effects

Table 4: Control treatment: model coefficients for the probability of abortion

modelNumber	parameter	lower	est	upper
3	(Intercept)	-8.7038051	-7.0854080	-5.7065121
2	(Intercept)	-9.0606081	-7.2346367	-5.7392719
3	mAge	0.0523649	0.0699584	0.0898972
2	mAge	0.0527920	0.0713227	0.0929656

Table 5: Mating delay treatment: model coefficients for the probability of abortion

modelNumber	parameter	lower	est	upper
3	(Intercept)	-8.8583290	-6.3288005	-4.2279430
2	(Intercept)	-9.9687541	-6.8719679	-4.4756685
3	mAge	0.0246492	0.0519074	0.0827728
2	mAge	0.0261098	0.0547138	0.0884747

Table 6: Nutritional stress treatment: model coefficients for the probability of abortion

modelNumber	parameter	lower	est	upper
2	(Intercept)	-4.7578386	-3.8165010	-2.9938208
3	(Intercept)	-3.8925576	-3.2016317	-2.5585932
2	mAge	0.0333966	0.0456664	0.0592395
3	mAge	0.0271161	0.0371226	0.0476259

Offspring wet weight

Tables 7 to 9 provide a summary of the fitted models for offspring wet weight as a function of maternal age for each treatment. AICc was used for comparison. Tables 10 to 12 provide the corresponding coefficients for model summarised in Tables 7 to 9. Tables 13 to 15 summarise the random effects variance for relevant models in Tables 7 to 9.

Model fits

Table 7: Control treatment: model fits for offspring wet weight

modelNumber	fixedEffects	randomEffects	k	ll	aic	deltaAIC	weights
1	wet_weight ~ mAgeDays + I(mAgeDays^2) + mAgeatLastObs	~1 + mAgeDays + I(mAgeDays^2) | adults_id	10	-1381.214	2784.914	0.000	0.807
2	wet_weight ~ mAgeDays + I(mAgeDays^2) + mAgeatLastObs	~1 | adults_id	5	-1387.810	2787.773	2.859	0.193
3	wet_weight ~ mAgeDays + I(mAgeDays^2) + mAgeatLastObs	NA	4	-1434.759	2879.626	94.713	0.000
4	wet_weight ~ log(mAgeDays) + mAgeatLastObs	~1 + log(mAgeDays) | adults_id	6	-1450.198	2914.601	129.687	0.000
5	wet_weight ~ log(mAgeDays) + mAgeatLastObs	~1 | adults_id	4	-1452.510	2915.129	130.215	0.000
6	wet_weight ~ log(mAgeDays) + mAgeatLastObs	NA	3	-1479.003	2966.080	181.166	0.000
7	wet_weight ~ mAgeDays + mAgeatLastObs	~1 + mAgeDays | adults_id	6	-1483.104	2980.412	195.498	0.000
8	wet_weight ~ mAgeDays + mAgeatLastObs	~1 | adults_id	4	-1485.672	2981.454	196.540	0.000
9	wet_weight ~ mAgeDays + mAgeatLastObs	NA	3	-1504.186	3016.444	231.531	0.000
10	wet_weight ~ mAgeatLastObs	~1 | adults_id	3	-1550.276	3108.624	323.710	0.000
11	wet_weight ~ mAgeatLastObs	NA	2	-1558.379	3122.802	337.888	0.000

Table 8: Mating delay treatment: model fits for offspring wet weight

modelNumber	fixedEffects	randomEffects	k	ll	aic	deltaAIC	weights
1	wet_weight ~ mAgeDays + I(mAgeDays^2) + mAgeatLastObs	~1 + mAgeDays + I(mAgeDays^2) | adults_id	10	-815.0937	1653.114	0.000	0.659
2	wet_weight ~ mAgeDays + I(mAgeDays^2) + mAgeatLastObs	~1 | adults_id	5	-821.0729	1654.436	1.322	0.341
5	wet_weight ~ log(mAgeDays) + mAgeatLastObs	~1 | adults_id	4	-836.4060	1683.018	29.904	0.000
10	wet_weight ~ mAgeatLastObs	~1 | adults_id	3	-837.5710	1683.279	30.165	0.000
8	wet_weight ~ mAgeDays + mAgeatLastObs	~1 | adults_id	4	-837.2414	1684.689	31.575	0.000
4	wet_weight ~ log(mAgeDays) + mAgeatLastObs	~1 + log(mAgeDays) | adults_id	6	-835.7159	1685.819	32.706	0.000
7	wet_weight ~ mAgeDays + mAgeatLastObs	~1 + mAgeDays | adults_id	6	-836.3891	1687.166	34.052	0.000
3	wet_weight ~ mAgeDays + I(mAgeDays^2) + mAgeatLastObs	NA	4	-866.7573	1743.721	90.607	0.000
11	wet_weight ~ mAgeatLastObs	NA	2	-876.3348	1758.751	105.638	0.000
6	wet_weight ~ log(mAgeDays) + mAgeatLastObs	NA	3	-876.1818	1760.501	107.387	0.000
9	wet_weight ~ mAgeDays + mAgeatLastObs	NA	3	-876.3347	1760.806	107.693	0.000

Table 9: Nutritional stress treatment: model fits for offspring wet weight

modelNumber	fixedEffects	randomEffects	k	ll	aic	deltaAIC	weights
1	wet_weight ~ mAgeDays + I(mAgeDays^2) + mAgeatLastObs	~1 + mAgeDays + I(mAgeDays^2) | adults_id	10	-952.9487	1928.663	0.000	0.958
2	wet_weight ~ mAgeDays + I(mAgeDays^2) + mAgeatLastObs	~1 | adults_id	5	-961.3399	1934.920	6.257	0.042
3	wet_weight ~ mAgeDays + I(mAgeDays^2) + mAgeatLastObs	NA	4	-975.2213	1960.613	31.951	0.000
4	wet_weight ~ log(mAgeDays) + mAgeatLastObs	~1 + log(mAgeDays) | adults_id	6	-981.1422	1976.605	47.943	0.000
5	wet_weight ~ log(mAgeDays) + mAgeatLastObs	~1 | adults_id	4	-990.1228	1990.417	61.754	0.000
6	wet_weight ~ log(mAgeDays) + mAgeatLastObs	NA	3	-997.5394	2003.192	74.530	0.000
7	wet_weight ~ mAgeDays + mAgeatLastObs	~1 + mAgeDays | adults_id	6	-996.8434	2008.008	79.345	0.000
8	wet_weight ~ mAgeDays + mAgeatLastObs	~1 | adults_id	4	-1005.5190	2021.209	92.546	0.000
9	wet_weight ~ mAgeDays + mAgeatLastObs	NA	3	-1009.7942	2027.702	99.039	0.000
11	wet_weight ~ mAgeatLastObs	NA	2	-1028.7776	2063.623	134.961	0.000
10	wet_weight ~ mAgeatLastObs	~1 | adults_id	3	-1027.8477	2063.809	135.146	0.000

Model coefficients - fixed effects

Table 10: Control treatment: model coefficients for offspring wet weight

modelNumber	parameter	lower	est.	upper
1	(Intercept)	1.7955097	10.4099888	19.0244679
2	(Intercept)	1.8419847	10.4885680	19.1351514
1	I(mAgeDays^2)	-0.0044955	-0.0040002	-0.0035050
2	I(mAgeDays^2)	-0.0044536	-0.0039581	-0.0034626
1	mAgeatLastObs	-0.0008372	0.0864344	0.1737060
2	mAgeatLastObs	-0.0008858	0.0866794	0.1742446
1	mAgeDays	0.4638175	0.5174102	0.5710030
2	mAgeDays	0.4579784	0.5130519	0.5681254

Table 11: Mating delay treatment: model coefficients for offspring wet weight

modelNumber	parameter	lower	est.	upper
1	(Intercept)	-11.6858271	10.6276901	32.9412073
2	(Intercept)	-9.8278804	11.9383438	33.7045681
1	I(mAgeDays^2)	-0.0054386	-0.0042240	-0.0030093
2	I(mAgeDays^2)	-0.0050663	-0.0037949	-0.0025236
1	mAgeatLastObs	-0.1781626	0.0427607	0.2636841
2	mAgeatLastObs	-0.1665248	0.0480735	0.2626719
1	mAgeDays	0.4066531	0.5646427	0.7226323
2	mAgeDays	0.3397095	0.5079836	0.6762577

Table 12: Nutritional stress treatment: model coefficients for offspring wet weight

modelNumber	parameter	lower	est.	upper
1	(Intercept)	11.8663306	15.2259192	18.5855078
2	(Intercept)	11.0479021	14.9365054	18.8251087
1	I(mAgeDays^2)	-0.0047900	-0.0040239	-0.0032579
2	I(mAgeDays^2)	-0.0047326	-0.0039737	-0.0032149
1	mAgeatLastObs	-0.0386434	-0.0051657	0.0283119
2	mAgeatLastObs	-0.0430245	-0.0038077	0.0354092
1	mAgeDays	0.4209398	0.5038801	0.5868204
2	mAgeDays	0.4204059	0.5040676	0.5877293

Random effects

Table 13: Control treatment: random effects for offspring wet weight

modelNumber	parameter	Variance	StdDev
1	(Intercept)	4.695	2.167
2	(Intercept)	3.649	1.910
1	I(mAgeDays^2)	0.000	0.000
1	mAgeDays	0.000	0.003
1	Residual	6.060	2.462
2	Residual	6.871	2.621

Table 14: Mating delay treatment: random effects for offspring wet weight

modelNumber	parameter	Variance	StdDev
1	(Intercept)	11.700	3.421
2	(Intercept)	10.445	3.232
1	I(mAgeDays^2)	0.000	0.001
1	mAgeDays	0.005	0.072
1	Residual	7.766	2.787
2	Residual	10.025	3.166

Table 15: Nutritional stress treatment: random effects for offspring wet weight

modelNumber	parameter	Variance	StdDev
1	(Intercept)	2.331	1.527
2	(Intercept)	3.469	1.862
1	I(mAgeDays^2)	0.000	0.000
1	mAgeDays	0.003	0.051
1	Residual	9.379	3.063
2	Residual	10.433	3.230

Offspring starvation tolerance

Tables 16 to 18 provide a summary of the fitted models for offspring starvation tolerance for each treatment. Tables 19 - 21 provide coefficients for each of the models in Tables 16 to 18. Tables 22 - 24 show random effects variance for each of the relevant models in Tables 16 to 18.

Model fits

Table 16: Control treatment: model fits for days to starvation

modelNumber	fixedEffects	randomEffects	k	ll	aic	deltaAIC	weights
5	daysSurv ~ wet_weight + sex + mAgeDays + I(mAgeDays^2) + mAgeatLastObs	NA	6	-634.2272	1282.792	0.000	0.379
3	daysSurv ~ wet_weight + sex + mAgeDays + I(mAgeDays^2) + mAgeatLastObs	~1	adults_id	7	-633.8102	1284.055	1.264	0.202
20	daysSurv ~ wet_weight + sex + mAgeatLastObs	NA	4	-637.3440	1284.868	2.076	0.134
19	daysSurv ~ wet_weight + sex + mAgeatLastObs	~1	adults_id	5	-636.7763	1285.805	3.013	0.084
11	daysSurv ~ wet_weight + sex + log(mAgeDays) + mAgeatLastObs	NA	5	-637.2112	1286.675	3.883	0.054
17	daysSurv ~ wet_weight + sex + mAgeDays + mAgeatLastObs	NA	5	-637.3419	1286.936	4.144	0.048
9	daysSurv ~ wet_weight + sex + log(mAgeDays) + mAgeatLastObs	~1	adults_id	6	-636.6483	1287.634	4.842	0.034
15	daysSurv ~ wet_weight + sex + mAgeDays + mAgeatLastObs	~1	adults_id	6	-636.7742	1287.886	5.094	0.030
7	daysSurv ~ wet_weight + sex + log(mAgeDays) + mAgeatLastObs	~1 + log(mAgeDays)	adults_id	8	-635.1030	1288.752	5.960	0.019
13	daysSurv ~ wet_weight + sex + mAgeDays + mAgeatLastObs	~1 + mAgeDays	adults_id	8	-635.4863	1289.518	6.726	0.013
1	daysSurv ~ wet_weight + sex + mAgeDays + I(mAgeDays^2) + mAgeatLastObs	~1 + mAgeDays + I(mAgeDays^2)	adults_id	12	-632.8614	1292.839	10.047	0.002
6	daysSurv ~ wet_weight + mAgeDays + I(mAgeDays^2) + mAgeatLastObs	NA	5	-648.6294	1309.511	26.719	0.000
4	daysSurv ~ wet_weight + mAgeDays + I(mAgeDays^2) + mAgeatLastObs	~1	adults_id	6	-648.0548	1310.447	27.655	0.000
22	daysSurv ~ wet_weight + mAgeatLastObs	NA	3	-652.0967	1312.313	29.521	0.000
21	daysSurv ~ wet_weight + mAgeatLastObs	~1	adults_id	4	-651.2691	1312.718	29.926	0.000
12	daysSurv ~ wet_weight + log(mAgeDays) + mAgeatLastObs	NA	4	-651.5607	1313.301	30.509	0.000
10	daysSurv ~ wet_weight + log(mAgeDays) + mAgeatLastObs	~1	adults_id	5	-650.7627	1313.778	30.986	0.000
18	daysSurv ~ wet_weight + mAgeDays + mAgeatLastObs	NA	4	-651.9148	1314.009	31.217	0.000
16	daysSurv ~ wet_weight + mAgeDays + mAgeatLastObs	~1	adults_id	5	-651.0945	1314.441	31.649	0.000
8	daysSurv ~ wet_weight + log(mAgeDays) + mAgeatLastObs	~1 + log(mAgeDays)	adults_id	7	-649.3951	1315.225	32.434	0.000
14	daysSurv ~ wet_weight + mAgeDays + mAgeatLastObs	~1 + mAgeDays	adults_id	7	-649.9142	1316.263	33.472	0.000
2	daysSurv ~ wet_weight + mAgeDays + I(mAgeDays^2) + mAgeatLastObs	~1 + mAgeDays + I(mAgeDays^2)	adults_id	11	-647.2708	1319.496	36.704	0.000
24	daysSurv ~ mAgeatLastObs	NA	2	-704.9601	1415.992	133.200	0.000
23	daysSurv ~ mAgeatLastObs	~1	adults_id	3	-704.9633	1418.046	135.254	0.000

Table 17: Mating delay treatment: model fits for days to starvation

modelNumber	fixedEffects	randomEffects	k	ll	aic	deltaAIC	weights
5	daysSurv ~ wet_weight + sex + mAgeDays + I(mAgeDays^2) + mAgeatLastObs	NA	6	-349.5809	713.7981	0.000	0.276
20	daysSurv ~ wet_weight + sex + mAgeatLastObs	NA	4	-352.3147	714.9665	1.168	0.154
17	daysSurv ~ wet_weight + sex + mAgeDays + mAgeatLastObs	NA	5	-351.3714	715.2173	1.419	0.136
3	daysSurv ~ wet_weight + sex + mAgeDays + I(mAgeDays^2) + mAgeatLastObs	~1	adults_id	7	-349.4551	715.7331	1.935	0.105
11	daysSurv ~ wet_weight + sex + log(mAgeDays) + mAgeatLastObs	NA	5	-351.6727	715.8200	2.022	0.100
19	daysSurv ~ wet_weight + sex + mAgeatLastObs	~1	adults_id	5	-352.1047	716.6841	2.886	0.065
15	daysSurv ~ wet_weight + sex + mAgeDays + mAgeatLastObs	~1	adults_id	6	-351.1901	717.0165	3.218	0.055
9	daysSurv ~ wet_weight + sex + log(mAgeDays) + mAgeatLastObs	~1	adults_id	6	-351.4814	717.5992	3.801	0.041
13	daysSurv ~ wet_weight + sex + mAgeDays + mAgeatLastObs	~1 + mAgeDays	adults_id	8	-350.4470	719.9284	6.130	0.013
7	daysSurv ~ wet_weight + sex + log(mAgeDays) + mAgeatLastObs	~1 + log(mAgeDays)	adults_id	8	-350.4816	719.9977	6.200	0.012
6	daysSurv ~ wet_weight + mAgeDays + I(mAgeDays^2) + mAgeatLastObs	NA	5	-353.8429	720.1604	6.362	0.011
18	daysSurv ~ wet_weight + mAgeDays + mAgeatLastObs	NA	4	-355.2241	720.7853	6.987	0.008
12	daysSurv ~ wet_weight + log(mAgeDays) + mAgeatLastObs	NA	4	-355.5855	721.5081	7.710	0.006
22	daysSurv ~ wet_weight + mAgeatLastObs	NA	3	-356.8853	721.9941	8.196	0.005
4	daysSurv ~ wet_weight + mAgeDays + I(mAgeDays^2) + mAgeatLastObs	~1	adults_id	6	-353.7837	722.2037	8.406	0.004
16	daysSurv ~ wet_weight + mAgeDays + mAgeatLastObs	~1	adults_id	5	-355.1313	722.7371	8.939	0.003
10	daysSurv ~ wet_weight + log(mAgeDays) + mAgeatLastObs	~1	adults_id	5	-355.4858	723.4461	9.648	0.002
21	daysSurv ~ wet_weight + mAgeatLastObs	~1	adults_id	4	-356.7807	723.8984	10.100	0.002
14	daysSurv ~ wet_weight + mAgeDays + mAgeatLastObs	~1 + mAgeDays	adults_id	7	-354.5571	725.9370	12.139	0.001
8	daysSurv ~ wet_weight + log(mAgeDays) + mAgeatLastObs	~1 + log(mAgeDays)	adults_id	7	-354.6056	726.0340	12.236	0.001
2	daysSurv ~ wet_weight + mAgeDays + I(mAgeDays^2) + mAgeatLastObs	~1 + mAgeDays + I(mAgeDays^2)	adults_id	11	-353.2136	732.2518	18.454	0.000
24	daysSurv ~ mAgeatLastObs	NA	2	-371.3582	748.8497	35.052	0.000
23	daysSurv ~ mAgeatLastObs	~1	adults_id	3	-371.1829	750.5893	36.791	0.000
1	daysSurv ~ wet_weight + sex + mAgeDays + I(mAgeDays^2) + mAgeatLastObs	~1 + mAgeDays + I(mAgeDays^2)	adults_id	NA	NA	NA	NA	NA

Table 18: Nutritional stress treatment: model fits for days to starvation

modelNumber	fixedEffects	randomEffects	k	ll	aic	deltaAIC	weights
3	daysSurv ~ wet_weight + sex + mAgeDays + I(mAgeDays^2) + mAgeatLastObs	~1	adults_id	7	-356.5402	729.7898	0.000	0.868
5	daysSurv ~ wet_weight + sex + mAgeDays + I(mAgeDays^2) + mAgeatLastObs	NA	6	-359.8813	734.3116	4.522	0.090
1	daysSurv ~ wet_weight + sex + mAgeDays + I(mAgeDays^2) + mAgeatLastObs	~1 + mAgeDays + I(mAgeDays^2)	adults_id	12	-354.6431	737.1245	7.335	0.022
4	daysSurv ~ wet_weight + mAgeDays + I(mAgeDays^2) + mAgeatLastObs	~1	adults_id	6	-361.6889	737.9268	8.137	0.015
6	daysSurv ~ wet_weight + mAgeDays + I(mAgeDays^2) + mAgeatLastObs	NA	5	-364.6040	741.6177	11.828	0.002
9	daysSurv ~ wet_weight + sex + log(mAgeDays) + mAgeatLastObs	~1	adults_id	6	-364.4965	743.5421	13.752	0.001
7	daysSurv ~ wet_weight + sex + log(mAgeDays) + mAgeatLastObs	~1 + log(mAgeDays)	adults_id	8	-362.8092	744.5095	14.720	0.001
2	daysSurv ~ wet_weight + mAgeDays + I(mAgeDays^2) + mAgeatLastObs	~1 + mAgeDays + I(mAgeDays^2)	adults_id	11	-359.6969	744.9616	15.172	0.000
11	daysSurv ~ wet_weight + sex + log(mAgeDays) + mAgeatLastObs	NA	5	-366.9605	746.3308	16.541	0.000
15	daysSurv ~ wet_weight + sex + mAgeDays + mAgeatLastObs	~1	adults_id	6	-368.7779	752.1048	22.315	0.000
10	daysSurv ~ wet_weight + log(mAgeDays) + mAgeatLastObs	~1	adults_id	5	-369.9509	752.3115	22.522	0.000
13	daysSurv ~ wet_weight + sex + mAgeDays + mAgeatLastObs	~1 + mAgeDays	adults_id	8	-366.7579	752.4069	22.617	0.000
8	daysSurv ~ wet_weight + log(mAgeDays) + mAgeatLastObs	~1 + log(mAgeDays)	adults_id	7	-368.0692	752.8478	23.058	0.000
12	daysSurv ~ wet_weight + log(mAgeDays) + mAgeatLastObs	NA	4	-372.0610	754.4133	24.624	0.000
17	daysSurv ~ wet_weight + sex + mAgeDays + mAgeatLastObs	NA	5	-371.1519	754.7136	24.924	0.000
14	daysSurv ~ wet_weight + mAgeDays + mAgeatLastObs	~1 + mAgeDays	adults_id	7	-372.0182	760.7457	30.956	0.000
16	daysSurv ~ wet_weight + mAgeDays + mAgeatLastObs	~1	adults_id	5	-374.1881	760.7860	30.996	0.000
18	daysSurv ~ wet_weight + mAgeDays + mAgeatLastObs	NA	4	-376.2469	762.7850	32.995	0.000
19	daysSurv ~ wet_weight + sex + mAgeatLastObs	~1	adults_id	5	-378.9346	770.2790	40.489	0.000
20	daysSurv ~ wet_weight + sex + mAgeatLastObs	NA	4	-381.5391	773.3695	43.580	0.000
21	daysSurv ~ wet_weight + mAgeatLastObs	~1	adults_id	4	-383.3443	776.9799	47.190	0.000
22	daysSurv ~ wet_weight + mAgeatLastObs	NA	3	-385.7996	779.7925	50.003	0.000
24	daysSurv ~ mAgeatLastObs	NA	2	-444.0794	894.2742	164.484	0.000
23	daysSurv ~ mAgeatLastObs	~1	adults_id	3	-443.7386	895.6704	165.881	0.000

Model coefficients - fixed effects

Table 19: Control treatment: model coefficients for days to starvation

modelNumber	parameter	lower	est.	upper
5	(Intercept)	-2.6932752	1.5307052	5.7546856
3	(Intercept)	-2.6292841	1.5849385	5.7991611
20	(Intercept)	-2.2661699	1.9570626	6.1802950
19	(Intercept)	-2.2749901	1.9574614	6.1899128
11	(Intercept)	-2.5321306	1.7618703	6.0558712
17	(Intercept)	-2.2744787	1.9676674	6.2098134
9	(Intercept)	-2.5219505	1.7707671	6.0634848
15	(Intercept)	-2.2770853	1.9683888	6.2138629
7	(Intercept)	-2.3734348	1.7479172	5.8692693
13	(Intercept)	-2.0869239	1.9965149	6.0799537
1	(Intercept)	-2.4330449	1.6479361	5.7289171
5	I(mAgeDays^2)	-0.0009623	-0.0005372	-0.0001120
3	I(mAgeDays^2)	-0.0009451	-0.0005239	-0.0001027
1	I(mAgeDays^2)	-0.0009171	-0.0004955	-0.0000739
11	log(mAgeDays)	-0.3301815	0.1160815	0.5623445
9	log(mAgeDays)	-0.3285692	0.1136006	0.5557705
7	log(mAgeDays)	-0.3078089	0.1427419	0.5932927
5	mAgeatLastObs	-0.0446575	-0.0026820	0.0392936
3	mAgeatLastObs	-0.0460871	-0.0038581	0.0383710
20	mAgeatLastObs	-0.0450831	-0.0028555	0.0393721
19	mAgeatLastObs	-0.0468724	-0.0042253	0.0384218
11	mAgeatLastObs	-0.0453723	-0.0030882	0.0391958
17	mAgeatLastObs	-0.0451783	-0.0028805	0.0394173
9	mAgeatLastObs	-0.0470485	-0.0044124	0.0382237
15	mAgeatLastObs	-0.0468973	-0.0042458	0.0384056
7	mAgeatLastObs	-0.0452994	-0.0045453	0.0362087
13	mAgeatLastObs	-0.0453435	-0.0043622	0.0366191
1	mAgeatLastObs	-0.0448580	-0.0039957	0.0368665
5	mAgeDays	0.0124233	0.0622765	0.1121298
3	mAgeDays	0.0113807	0.0608195	0.1102584
17	mAgeDays	-0.0086015	0.0002886	0.0091787
15	mAgeDays	-0.0085005	0.0002898	0.0090801
13	mAgeDays	-0.0079211	0.0011216	0.0101644
1	mAgeDays	0.0086633	0.0579242	0.1071850
5	sexM	-1.2852395	-0.9436468	-0.6020541
3	sexM	-1.2802847	-0.9405845	-0.6008843
20	sexM	-1.3005659	-0.9588332	-0.6171005
19	sexM	-1.2937073	-0.9528195	-0.6119316
11	sexM	-1.2935987	-0.9496822	-0.6057657
17	sexM	-1.3017302	-0.9576950	-0.6136597
9	sexM	-1.2865231	-0.9440397	-0.6015564
15	sexM	-1.2943143	-0.9516829	-0.6090516
7	sexM	-1.2814795	-0.9417578	-0.6020362
13	sexM	-1.2896186	-0.9491214	-0.6086242
1	sexM	-1.2798825	-0.9417154	-0.6035482
5	wet_weight	0.1528724	0.2078999	0.2629273
3	wet_weight	0.1553759	0.2107553	0.2661347

20	wet__weight	0.1986873	0.2418986	0.2851099
19	wet__weight	0.2028383	0.2459035	0.2889688
11	wet__weight	0.1836270	0.2347918	0.2859565
17	wet__weight	0.1924885	0.2411745	0.2898604
9	wet__weight	0.1873607	0.2387004	0.2900402
15	wet__weight	0.1964625	0.2451547	0.2938469
7	wet__weight	0.1850508	0.2365904	0.2881300
13	wet__weight	0.1946342	0.2435093	0.2923844
1	wet__weight	0.1555871	0.2112209	0.2668546

Table 20: Mating delay treatment: model coefficients for days to starvation

modelNumber	parameter	lower	est.	upper
5	(Intercept)	-5.5841973	0.5691507	6.7224987
20	(Intercept)	-2.0364878	3.3147407	8.6659692
17	(Intercept)	-1.8311415	3.5157561	8.8626536
3	(Intercept)	-5.6645933	0.5935071	6.8516074
11	(Intercept)	-1.1218081	4.9694107	11.0606294
19	(Intercept)	-2.3628472	3.2527958	8.8684388
15	(Intercept)	-2.1154428	3.4547466	9.0249360
9	(Intercept)	-1.3985567	4.8716143	11.1417853
13	(Intercept)	-2.8119572	3.1760668	9.1640907
7	(Intercept)	-2.0849659	4.5772302	11.2394262
6	(Intercept)	-5.8339991	0.4450997	6.7241985
18	(Intercept)	-2.3347530	3.1015740	8.5379009
12	(Intercept)	-1.0013569	5.2009931	11.4033430
22	(Intercept)	-2.6805324	2.7782184	8.2369692
4	(Intercept)	-5.8803990	0.4586692	6.7977375
16	(Intercept)	-2.5354823	3.0584583	8.6523990
10	(Intercept)	-1.1917629	5.1379708	11.4677046
21	(Intercept)	-2.9146178	2.7339612	8.3825401
14	(Intercept)	-3.3171003	2.8262271	8.9695545
8	(Intercept)	-1.8355085	4.9375746	11.7106577
5	I(mAgeDays^2)	-0.0015908	-0.0007741	0.0000427
3	I(mAgeDays^2)	-0.0015600	-0.0007583	0.0000435
6	I(mAgeDays^2)	-0.0015251	-0.0006934	0.0001382
4	I(mAgeDays^2)	-0.0015040	-0.0006834	0.0001371
11	log(mAgeDays)	-1.3416576	-0.4856629	0.3703318
9	log(mAgeDays)	-1.3143540	-0.4743887	0.3655766
7	log(mAgeDays)	-1.3834987	-0.4759449	0.4316090
12	log(mAgeDays)	-1.5549555	-0.6963540	0.1622475
10	log(mAgeDays)	-1.5378693	-0.6906486	0.1565720
8	log(mAgeDays)	-1.6096277	-0.7064681	0.1966916
5	mAgeatLastObs	-0.0284713	0.0230191	0.0745094
20	mAgeatLastObs	-0.0353748	0.0162071	0.0677889
17	mAgeatLastObs	-0.0318589	0.0198802	0.0716193
3	mAgeatLastObs	-0.0307478	0.0228137	0.0763752
11	mAgeatLastObs	-0.0327965	0.0189825	0.0707616
19	mAgeatLastObs	-0.0386801	0.0160395	0.0707590
15	mAgeatLastObs	-0.0348620	0.0195681	0.0739982

9	mAgeatLastObs	-0.0358673	0.0186886	0.0732445
13	mAgeatLastObs	-0.0381067	0.0203485	0.0788038
7	mAgeatLastObs	-0.0368708	0.0199073	0.0766853
6	mAgeatLastObs	-0.0273111	0.0252144	0.0777399
18	mAgeatLastObs	-0.0303510	0.0223044	0.0749599
12	mAgeatLastObs	-0.0313388	0.0213759	0.0740905
22	mAgeatLastObs	-0.0352044	0.0175193	0.0702430
4	mAgeatLastObs	-0.0289122	0.0250502	0.0790127
16	mAgeatLastObs	-0.0326147	0.0220608	0.0767364
10	mAgeatLastObs	-0.0336834	0.0211359	0.0759553
21	mAgeatLastObs	-0.0377120	0.0173767	0.0724655
14	mAgeatLastObs	-0.0384965	0.0215187	0.0815340
8	mAgeatLastObs	-0.0369780	0.0210412	0.0790604
5	mAgeDays	-0.0159982	0.0919751	0.1999483
17	mAgeDays	-0.0233670	-0.0095266	0.0043139
3	mAgeDays	-0.0159066	0.0900147	0.1959360
15	mAgeDays	-0.0229058	-0.0093105	0.0042848
13	mAgeDays	-0.0234924	-0.0088760	0.0057404
6	mAgeDays	-0.0317203	0.0780459	0.1878121
18	mAgeDays	-0.0266517	-0.0127546	0.0011426
4	mAgeDays	-0.0314710	0.0767848	0.1850406
16	mAgeDays	-0.0263640	-0.0126401	0.0010837
14	mAgeDays	-0.0270523	-0.0123870	0.0022783
5	sexM	-1.2071723	-0.7188712	-0.2305701
20	sexM	-1.2288624	-0.7440097	-0.2591571
17	sexM	-1.1784139	-0.6878424	-0.1972709
3	sexM	-1.2053434	-0.7241728	-0.2430023
11	sexM	-1.1874381	-0.6953880	-0.2033379
19	sexM	-1.2314539	-0.7517141	-0.2719743
15	sexM	-1.1797521	-0.6953382	-0.2109244
9	sexM	-1.1888410	-0.7030246	-0.2172083
13	sexM	-1.1935218	-0.7159379	-0.2383541
7	sexM	-1.1958086	-0.7162903	-0.2367720
5	wet_weight	0.0871744	0.1424133	0.1976523
20	wet_weight	0.1011218	0.1550422	0.2089626
17	wet_weight	0.1018797	0.1556841	0.2094884
3	wet_weight	0.0885509	0.1440752	0.1995995
11	wet_weight	0.1026187	0.1565705	0.2105222
19	wet_weight	0.1029880	0.1575758	0.2121635
15	wet_weight	0.1039298	0.1581804	0.2124310
9	wet_weight	0.1047112	0.1591450	0.2135788
13	wet_weight	0.1089765	0.1640602	0.2191438
7	wet_weight	0.1109125	0.1651115	0.2193105
6	wet_weight	0.0877397	0.1441006	0.2004616
18	wet_weight	0.1011899	0.1559775	0.2107650
12	wet_weight	0.1023566	0.1573100	0.2122634
22	wet_weight	0.1000051	0.1551266	0.2102482
4	wet_weight	0.0888394	0.1453194	0.2017994
16	wet_weight	0.1027120	0.1578282	0.2129445
10	wet_weight	0.1039510	0.1592673	0.2145835
21	wet_weight	0.1013025	0.1569538	0.2126051

14	wet_weight	0.1102679	0.1663228	0.2223778
8	wet_weight	0.1130712	0.1679069	0.2227426

Table 21: Nutritional stress treatment: model coefficients for days to starvation

modelNumber	parameter	lower	est.	upper
3	(Intercept)	-2.1121563	-0.2340830	1.6439904
5	(Intercept)	-2.1465415	-0.3069750	1.5325914
1	(Intercept)	-1.9117493	-0.0398673	1.8320146
4	(Intercept)	-2.6844192	-0.7981164	1.0881864
6	(Intercept)	-2.6987139	-0.8574296	0.9838548
9	(Intercept)	-4.5906190	-2.6418759	-0.6931329
7	(Intercept)	-4.7664989	-2.7382643	-0.7100297
3	I(mAgeDays^2)	-0.0015135	-0.0010910	-0.0006685
5	I(mAgeDays^2)	-0.0015063	-0.0010682	-0.0006301
1	I(mAgeDays^2)	-0.0014977	-0.0010619	-0.0006261
4	I(mAgeDays^2)	-0.0015621	-0.0011295	-0.0006969
6	I(mAgeDays^2)	-0.0015552	-0.0011092	-0.0006631
9	log(mAgeDays)	0.8478769	1.3159082	1.7839394
7	log(mAgeDays)	0.8971389	1.4086543	1.9201698
3	mAgeatLastObs	-0.0296946	-0.0136325	0.0024295
5	mAgeatLastObs	-0.0283314	-0.0132574	0.0018165
1	mAgeatLastObs	-0.0299972	-0.0141028	0.0017917
4	mAgeatLastObs	-0.0289919	-0.0126305	0.0037308
6	mAgeatLastObs	-0.0277867	-0.0124207	0.0029452
9	mAgeatLastObs	-0.0271385	-0.0107132	0.0057121
7	mAgeatLastObs	-0.0267079	-0.0106620	0.0053839
3	mAgeDays	0.0974683	0.1460355	0.1946027
5	mAgeDays	0.0932173	0.1430241	0.1928308
1	mAgeDays	0.0957633	0.1444763	0.1931893
4	mAgeDays	0.0999810	0.1497013	0.1994216
6	mAgeDays	0.0964208	0.1471526	0.1978844
3	sexM	-0.9073249	-0.5640710	-0.2208171
5	sexM	-0.9332985	-0.5678583	-0.2024181
1	sexM	-0.8830150	-0.5488773	-0.2147396
9	sexM	-0.9633216	-0.6055884	-0.2478553
7	sexM	-0.9293746	-0.5802749	-0.2311753
3	wet_weight	0.1385742	0.1919671	0.2453601
5	wet_weight	0.1439188	0.1965603	0.2492017
1	wet_weight	0.1326804	0.1860968	0.2395132
4	wet_weight	0.1412702	0.1958464	0.2504227
6	wet_weight	0.1460794	0.1997346	0.2533897
9	wet_weight	0.1838976	0.2346926	0.2854877
7	wet_weight	0.1741909	0.2252746	0.2763584

Random effects

Table 22: Control treatment model random effects

modelNumber	parameter	Variance	StdDev
3	(Intercept)	0.105	0.325
19	(Intercept)	0.126	0.356
9	(Intercept)	0.126	0.355
15	(Intercept)	0.126	0.356
7	(Intercept)	2.033	1.426
13	(Intercept)	0.006	0.080
1	(Intercept)	0.001	0.034
1	I(mAgeDays^2)	0.000	0.000
7	log(mAgeDays)	0.226	0.475
13	mAgeDays	0.000	0.009
1	mAgeDays	0.000	0.008
3	Residual	2.338	1.529
19	Residual	2.362	1.537
9	Residual	2.361	1.537
15	Residual	2.362	1.537
7	Residual	2.243	1.498
13	Residual	2.266	1.505
1	Residual	2.258	1.503

Table 23: Mating delay treatment model random effects

modelNumber	parameter	Variance	StdDev
3	(Intercept)	0.091	0.302
19	(Intercept)	0.123	0.351
15	(Intercept)	0.112	0.334
9	(Intercept)	0.115	0.340
13	(Intercept)	3.143	1.773
7	(Intercept)	42.213	6.497
4	(Intercept)	0.062	0.249
16	(Intercept)	0.080	0.283
10	(Intercept)	0.084	0.289
21	(Intercept)	0.088	0.297
14	(Intercept)	3.323	1.823
8	(Intercept)	37.699	6.140
7	log(mAgeDays)	2.343	1.531
8	log(mAgeDays)	2.011	1.418
13	mAgeDays	0.001	0.025
14	mAgeDays	0.001	0.025
3	Residual	2.525	1.589
19	Residual	2.572	1.604
15	Residual	2.556	1.599
9	Residual	2.561	1.600
13	Residual	2.212	1.487
7	Residual	2.284	1.511
4	Residual	2.679	1.637
16	Residual	2.702	1.644
10	Residual	2.709	1.646
21	Residual	2.745	1.657
14	Residual	2.334	1.528
8	Residual	2.451	1.566

Table 24: Nutritional stress treatment model random effects

modelNumber	parameter	Variance	StdDev
3	(Intercept)	0.321	0.567
1	(Intercept)	0.599	0.774
4	(Intercept)	0.316	0.562
9	(Intercept)	0.293	0.541
7	(Intercept)	10.237	3.200
1	I(mAgeDays^2)	0.000	0.000
7	log(mAgeDays)	0.800	0.895
1	mAgeDays	0.001	0.023
3	Residual	1.427	1.195
1	Residual	1.205	1.098
4	Residual	1.513	1.230
9	Residual	1.576	1.255
7	Residual	1.387	1.178