



## Article Supplementary tables

Supplementary table 1: Model selection for 13 aerial size models. The factors analysed in the models (column intercepts and slopes, log likelihood (LogLik), Akaike information criterion (AIC) score) reveal the effect examined in the model. CTY- colony type (detail all types); NA= model did not converge.

AIC	Covariate	Fixed	Random	Interaction	Intercepts	Slopes	LogLik	AIC	Effect
Rank		Factor	Factor	Effect					
1	age	CTY	sample	age + CTY	random	random	-470	969	CTY and
									age+CTY
2	age	N.A.	sample	N.A.	random	Random	-479	970	Null -
									age
3	age	CTY	sample	N.A.	fixed	random	-584	1183	CTY.
			_		_				Intercept
4	age	CTY	sample	age + CTY	random	fixed	-594	1212	CTY and
_									age+CTY
5	age	CTY	sample	N.A.	random	fixed	-601	1218	CIY
6	age	N.A.	sample	N.A.	random	fixed	-614	1236	Null -
									age
7	age	CTY	sample	age + CTY	random	fixed	-621	1258	age +
									CTY
8	age	N.A.	sample	N.A.	fixed	fixed	-632	1273	Null -
									age
9	age	CTY	sample	age + CTY	fixed	fixed	-632	1281	age +
10						<b>N</b> T 4	014	1010	CTY
10	N.A.	CTY	sample	N.A.	random	N.A.	-914	1842	CIY
11	NT A	NT A	1 .	NT A		NT A	024	1050	only
11	N.A.	N.A.	sample	N.A.	random	IN.A.	-924	1853	Null -
10	2.20	CTV	commlo	NT A	randam	randam	Madal	NT A	random CTV and
12	age	CII	sample	IN.A.	random	random	failed to	IN.A.	
							ianeu to		age
13	200	CTV	samplo	$200 \pm CTV$	random	random	Model	ΝΔ	$200 \pm$
15	age	CII	sample		Tanuom	random	failed to	11.71	age ' CTV
							converge		CII
							converge		

Supplementary table 2: Model selection for 13 height models. The factors analysed in the models (column intercepts and slopes, log likelihood (LogLik), Akaike information criterion (AIC) score) reveal the effect examined in the model. CTY- colony type (detail all types); NA= model did not converge.

AIC	Covariate	Fixed	Random	Interaction	Intercepts	Slopes	LogLik	AIC	Effect
Rank		Factor	Factor	Effect					
1	age	CTY	sample	age + CTY	random	random	-426	872.5	age +
									CTY
2	age	N.A.	sample	N.A.	random	fixed	-448	905	Null-
2				<b>N</b> T 4		<i>с</i> . 1	110	014	age
3	age	CIY	sample	N.A.	random	fixed	-449	914	CTY
4	age	CTY	sample	age + CTY	random	fixed	-457	931	age +
									CTY
5	age	CTY	sample	age + CTY	random	fixed	-457	938	CTY and
					<i>a</i> 1	<i>.</i>	10.1		age+CTY
6	age	N.A.	sample	N.A.	fixed	fixed	-484	979	Null -
7		CTV	1 .	NT A	Cara I		400	092	age
/	age	CIY	sample	N.A.	fixed	random	-483	982	UII.
									model
8	200	CTV	sample	age + CTV	fixed	fixed	-494	1005	
0	age	CII	sample		iixcu	iixcu	1/1	1005	CTY
9	N.A.	N.A.	sample	N.A.	random	N.A.	-797	1600	Null -
-			<u>-</u>						sample
10	N.A.	CTY	sample	N.A.	random	N.A.	-800	1613	CTY
			1						only
11	age	N.A.	sample	N.A.	random	random	Model	N.A.	Null –
	-		-				failed to		age
							converge		
12	age	CTY	sample	age + CTY	random	random	Model	N.A.	CTY and
							failed to		age+CTY
							converge		
13	age	CTY	sample	N.A.	random	random	Model	N.A.	CTY and
							failed to		age
							converge		

Supplementary table 3: Model selection for 13 aeroxial volume models. The factors analysed in the models (column intercepts and slopes, log likelihood (LogLik), Akaike information criterion (AIC) score) reveal the effect examined in the model. CTY- colony type (detail all types); NA= model did not converge.

AIC	Covariate	Fixed	Random	Interaction	Intercepts	Slopes	LogLik	AIC	Effect
Rank		Factor	Factor	Effect					
1	age	CTY	sample	age + CTY	random	random	-867	1762	CTY and age+CTY
2	age	CTY	sample	age + CTY	random	random	-874	1768	age + CTY
3	age	CTY	sample	N.A.	fixed	random	-934	1184	CTY. Intercept model
4	age	CTY	sample	N.A.	random	fixed	-950	1917	CTY
5	age	CTY	sample	age + CTY	random	fixed	-951	1926	CTY and age+CTY
6	age	N.A.	sample	N.A.	random	fixed	-961	1929	Null - age
7	age	N.A.	sample	N.A.	fixed	fixed	-966	1940	age
8	age	CTY	sample	age + CTY	random	fixed	-966	1948	age + CTY
9	age	CTY	sample	age + CTY	fixed	fixed	-967	1949	age + CTY
10	N.A.	CTY	sample	N.A.	random	N.A.	-1366	2747	CTY only
11	N.A.	N.A.	sample	N.A.	random	N.A.	-1373	2752	Null - sample
12	age	CTY	sample	N.A.	random	random	Model failed to converge	N.A.	CTY and age
13	age	N.A.	sample	N.A.	random	random	Model failed to converge	N.A.	Null - age

upplementary Table 4: A pairwise comparison at ages 0, 10.8 months and 18 months and slopes (trends) for the best fitted model in aerial view dimensions. For
ch comparison, an estimated difference in EEM (Estimated marginal means; intercepts for ages and slope for trends) values are presented with the corresponding
andard errors (SE), degrees of freedom (df) and adjusted p. values.

Contrast		Age	0			Age	10.8			Age	18			Tren	ds	
	Estimat	e SE	df	p. /alue	Estimate	$\mathbf{SE}$	df	p. Value	Estimate	$\mathbf{SE}$	df <sup>F</sup> Va	. Es lue	timate	SE	df	p. Value
GHC - Bi- chimera	-0.74	0.19	203.95 0	.0010	-0.50	0.10	212.56	<0.001	-0.35	0.18	189.29 0.5	651	0.02	0.02	194.08	1
GHC - Bi- rejected	-0.49	0.23	203.32 0	.3349	-0.14	0.12	217.32	1	0.10	0.23	193.61	-	0.03	0.02	193 .54	1
GHC - Multi- chimera	-0.88	0.26	206.85 0	.0103	-0.66	0.14	208.71	<0.001	-0.52	0.24	177.16 0.3	151	0.02	0.02	188.95	1
GHC - Multi- rejected	-1.01	0.22	185.50 0	.0001	-0.34	0.12	203.72	0.0461	0.10	0.21	184.86	-1	0.06	0.02	177.70	0.03
Bi- chimera - Bi- rejected	0.25	0.23	196.90	1	0.37	0.13	216.08	0.0419	0.45	0.24	191.42 0.6	124	0.01	0.02	187.94	1.0
Bi- chimera - Multi- chimera	-0.13	0.27	201.80	Ц	-0.16	0.14	208.25	1	-0.17	0.25	176.07	-1	0.00	0.02	184.40	1.0
Bi- chimera - Multi- rejected	-0.27	0.23	180.09	Ц	0.16	0.12	203.40	7	0.45	0.22	182.97 0.4	231	0.04	0.02	172.74	0.61
Bi- rejected - Multi- chimera	-0.38	0.30	202.15	1	-0.52	0.16	212.13	0.0110	-0.62	0.28	182.01 0.3	- 083	-0.01	0.03	186.51	1
Bi- rejected - Multi- rejected	-0.51	0.26	185.49 0	.5242	-0.20	0.14	209.24	1	0.00	0.26	188.06	_	0.03	0.03	178.36	1
Multi- chimera - Multi- rejecte	d –0.13	0.29	191.30	1	0.32	0.16	203.82	0.4068	0.62	0.27	175.78 0.2	250	0.04	0.03	176.27	1

5, 10 <b>4</b> 4	Supplen an EEM freedom	nentary tal (Estimateo (df), lowe	ble 5: A d marg er confi	un EMM șinal me dence ir	values a an; interc nterval ar	ge 0, 10.8 cepts for a nd upper	months, 18 ges and slc confidence	i months ope for tre intervals	and slope ends) valu	s (trends) les are pre	in the be sented v	est fitted vith corr	model f espondi	or aeria ng stan	l size. For dard error	each coloi s (SE), de	ny type, grees of	
Colony Type		V	tge 0				Age 1	9.8			V	ge 18				Tren	ds	
	EMM	SE c	df L	ower. l CL	Jpper. CL	EMM	SEd	f Lowe	er Upper .CL	EMM	SE	df <sup>L</sup>	owe Uj	pper. 9 CL	llope <sub>SE</sub>	df	Lower .CL	Upper. CL
GHC	2.23	0.13 21	5.08	1.89	2.56	3.75	0.07 214	.17 3.57	3.92	4.76	0.12 1	92.98	1.45	5.08	0.14 0.01	204.55	0.11	0.17
Bi- chimera	2.97	0.14 19,	4.49	2.62	3.32	4.25	0.07 211	.22 4.06	4.44	5.11	0.13 1	86.26	t.76	5.46	0.12 0.01	185.42	60.0	0.15
Bi- rejected	2.72	0.19 198	8.03	2.22	3.21	3.88	0.10 218	.49 3.62	4.15	4.66	0.20	93.83	l.16	5.17	0.11 0.02	2 189.08	0.06	0.16
Multi- chimera	3.10	0.23 20	4.25	2.51	3.70	4.41	0.12 207	.03 4.10	4.72	5.28	0.21	72.04	1.74	5.82	0.12 0.02	2 183.88	0.07	0.17
Multi- rejected	3.23	0.18 17.	2.78	2.76	3.71	4.09	0.10 199	.19 3.83	4.35	4.66	0.18 1	81.11	1.20	5.12	0.08 0.02	2 165.86	0.04	0.12

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5 of 11

Supplementary Table 6: Relative genotypes aerial size and aeroxial volume. The difference of the relative size and volume at the genotype level for bi chimeras and bi rejected was calculated by: (1) calculating the mean genotype aerial size by: Sum Of All Areal Sizes/ Number Of Genotypes in the entity X n. (2) Mean Genotype Aerial Size (for bi chimeras and bi rejected)/ Mean Genotype Aerial Size of GHC. The same calculation also performed for aeroxial volume.

Colony Type	Sum Of All Areal Sizes	Sum Of All Aeroxial Volumes	n	Number Of Genotypes In The Entity	Mean Genotype Aerial Size	Mean Genotype Aeroxial Volume	Aerial Size Difference From GHC (%)	Aeroxial Volume Difference From GHC (%)
GHC	773	7025	5	1	155	1405	NA	NA
Bi- chimera	2829	38097	1 1	2	129	1732	-17	23
Bi- rejected	856	10980	4	2	107	1372	-31	-2

Supplemer type, an E degrees of	ntary tal MM (Es freedon	ble 7: <i>i</i> stimate n (df), .	An EMM ed margii lower coi	values a <sub>,</sub> nal mear nfidence	ge 0, 10.8 1; interce interval	t month pts for and up]	s, 18 m ages a per cor	ionths ar nd slope ifidence	id slopes for trer intervals	s (trends) nds) valı s.	in the be les are p	est fitte resente	d model d with c	for the h orrespoi	leight da nding st <i>a</i>	ta. For e undard e	ach colo rrors (S	iny E),		
Colony Type			Age (	0				Age 10,	x				Age 18				Ĥ	rends		
	EMM	[ SE	df	Lower CL	Upper CL	EMM	SE	df	Lower	Upper CL	EMM	SE	df	Lower CL	Upper CL	EMM	SE	df Lo	wer U CL	[pper CL
GHC	0.19	0.06	194.30	0.04	0.35	1.34	0.05	226.71	1.22	1.46	2.11	0.07	184.20	1.92	2.30	0.11	0.01 25	32.63 0	60.	0.12
Bi- chimera	0.19	0.06	194.30	0.04	0.35	1.52	0.05	221.87	1.38	1.65	2.40	0.08	176.88	2.19	2.61	0.12	0.01 23	7.77 0	.11	0.14
Bi- rejected	0.19	0.06	194.30	0.04	0.35	1.55	0.07	230.51	1.36	1.74	2.46	0.12	209.99	2.15	2.77	0.13	0.01 27	5.73 0	.11	0.15
Multi- chimera	0.19	0.06	194.30	0.04	0.35	1.59	0.08	188.37	1.39	1.79	2.53	0.12	169.56	2.21	2.85	0.13	0.01 24	1.77 0	.11	0.15
Multi- rejected	0.19	0.06	194.30	0.04	0.35	1.46	0.07	210.28	1.29	1.63	2.31	0.11	179.21	2.03	2.59	0.12	0.01 24	1.19 0	.10	0.14

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		Age ()				Age 10.	æ			Age ]	0.8			Trei	spu	
Contrast	Estimate	SE	df	p. Value	Estimate	SE	df v	p. <sub>I</sub> alue	stimate	SE	df	p. Value	Estimate	SE	df	p. Value
GHC - Bi- chimera	-0.0000002	0.0000001	180.41	0.079	-0.17	0.06 18	30.41 C	620.	-0.29	0.11	180.41	0.079	-0.02	0.01	180.41	0.079
GHC - Bi- rejected	-0.0000002	0.0000001	201.62	0.127	-0.21	0.08 2(	1.62 0	.127	-0.35	0.14	201.62	0.127	-0.02	0.01	201.62	0.127
GHC - Multi- chimera	-0.0000002	0.0000001	171.97	0.04	-0.25	0.09 17	71.97 0	.040	-0.42	0.14	171.97	0.040	-0.02	0.01	171.97	0.040
GHC - Multi- rejected	-0.000001	0.0000001	180.85		-0.12	0.08 18	30.85	1	-0.20	0.13	180.85	1	-0.01	0.01	180.85	1
Bi- chimera - Bi- rejected	0.0000000	0.0000001	198.92	1	-0.04	0.09 19	92.92	1	-0.06	0.14	198.92	1	0.00	0.01	198.92	1
Bi- chimera - Multi- chimera	-0.0000001	0.0000001	171.11	<del>, -</del> 1	-0.08	0.09 17	71.11	Н	-0.13	0.15	171.11	1	-0.01	0.01	171.11	1
Bi- chimera - Multi- rejected	0.0000001	0.0000001	178.96		0.06	0.08 17	8.96	1	0.09	0.13	178.96	1	0.01	0.01	178.96	1
Bi- rejected - Multi- chimera	0.0000000	0.0000001	186.28	1	-0.04	0.10 18	86.28	1	-0.07	0.17	186.28	1	0.00	0.01	186.28	1
Bi- rejected - Multi- rejected	0.0000001	0.0000001	195.39		0.09	0.10 19	95.39	4	0.15	0.16	195.39	1	0.01	0.01	195.39	1
Multi- chimera - Multi- miorted	0.000001	0.0000001	173.11		0.13	0.10 17	73.11	1	0.22	0.16	173.11	1	0.01	0.01	173.11	1

Colony Type			Age 0					Age 10.8					Age 18				Tre	spu	
	EMM	SE	df	Lower CL	Upper CL	EMM	SE	I df	ower l CL	Jpper I CL	MME	SE	I df	ower <sup>1</sup> CL	Upper I CL	EMM S.	E df	Lowe	: Upper CL
GHC	2.38	0.18	208.18	1.91	2.86	5.08	0.10 2	213.34	4.82	5.33	6.88	0.18 1	.86.18	6.42	7.34	0.25 0.0	)2 194.8	7 0.21	0.29
Bi- chimera	3.07	0.19	184.32	2.58	3.57	5.75	0.11 2	210.98	5.47	6.02	7.53	0.19 1	80.35	7.03	8.04	0.25 0.0	)2 175.5	1 0.20	0.29
Bi- rejected	3.11	0.27	190.15	2.41	3.81	5.50	0.15 2	219.80	5.10	5.89	7.09	0.29 1	90.86	6.35	7.83	0.22 0.0	33 180.5	2 0.15	0.29
Multi- chimera	3.01	0.33	193.51	2.16	3.86	5.88	0.18 2	207.51	5.42	6.34	7.80	0.30 1	70.55	7.02	8.58	0.27 0.0	)3 181.4	8 0.19	0.34
Multi- rejected	3.63	0.25	163.58	2.97	4.29	5.62	0.15 2	200.02	5.24	6.00	6.95	0.25 1	.77.96	6.29	7.62	0.18 0.0	)2 157.0	5 0.12	0.25

Supplementary table 9: An EMM values age 0, 10.8 months, 18 months and slopes (trends) in the best fitted model for aeroxial ecological volume. For each colony type, an EEM (Estimated marginal mean; intercepts for ages and slope for trends) values are presented with corresponding standard errors

(SE), degrees of freedom (df), lower confidence intervals and upper confidence intervals.

		p. Value
o o	spı	df
for the	Trer	SE
s (trends) tercepts I s.		stimate
d slopes eans; int p. value		p. E ′alue
iths an jinal m usted j		lf v
l8 mon 1 marg md adj	ge 18	.0
s and 1 timateo n (df) <i>e</i>	A	e SI
.8 months EEM (Est of freedon		Estimat
iges 0, 10. arence in degrees o		p. Value
on at <i>e</i> ed diffe s (SE),	10.8	df
mparis stimate l error	Age	SE
iirwise coi ison, an e g standarc		Estimate
e 10: A pa h compar espondiny		p. Value
y Table For eac he corr	0	df
nentar lume. I with tl	Age	SE
MM Suppler cological voj e presented		Estimate
10: an EN eroxial ec values ar		
plementary table t fitted model in a slope for trends) '	Contrast	
Sup best and		

Contrast		Age	0			Age 10.8			Age	18			Trends	
	Estimate	SE	df <sub>V</sub>	p. ′alue	Estimate	SE df	p. Value	Estimate	SE	df	p. Value	Estimate	SE df	p. Value
GHC - Bi- chimera	-0.69	0.26	195.32 0	760.(	-0.67	0.14 212.00	0.000	-0.65	0.26	182.99	0.139	0.00	0.02 184.3	1 1
GHC - Bi- rejected	-0.73	0.32	195.77 0	).261	-0.42	0.18 218.00	0.213	-0.21	0.34	189.55	1	0.03	0.03 184.6	7 1
GHC - Multi- chimera	-0.62	0.37	197.04 0	.975	-0.80	0.20 208.90	0.001	-0.92	0.35	174.52	0.092	-0.02	0.03 184.9	3 1
GHC - Multi- rejected	-1.25	0.31	177.23 0	100.0	-0.55	0.18 204.09	) 0.021	-0.08	0.31	180.62	1	0.07	0.03 168.8	7 0.27
Bi- chimera - Bi- rejected	-0.04	0.33	188.24	1	0.25	0.19 216.80	1	0.44	0.34	187.50	1	0.03	0.03 178.9	3 1
Bi- chimera - Multi- chimera	0.07	0.38	191.31	1	-0.13	0.21 208.50	1	-0.26	0.36	173.42	1	-0.02	0.03 179.9	2 1
Bi- chimera - Multi- rejected	-0.56	0.32	170.65 0	808.	0.12	0.18 203.90	) 1	0.58	0.32	178.84	0.73	0.06	0.03 163.6	1 0.36
Bi- rejected - Multi- chimera	0.10	0.42	192.75	1	-0.38	0.23 212.98	1	-0.71	0.41	180.04	06.0	-0.05	0.04 181.4	1
Bi- rejected - Multi- rejected	-0.52	0.37	177.02	1	-0.13	0.21 210.34	1	0.14	0.38	185.07	1	0.04	0.04 169.7	1 1
Multi- chimera - Multi- reiected	-0.63	0.41	181.53	1	0.25	0.23 204.4	7 1	0.84	0.39	173.64	0.34	0.08	0.04 171.1	3 0.31

Contrast	Adjusted p. Value
GHC - Bi- chimera	0.033
GHC - Bi- rejected	0.606
GHC - Multi- chimera	0.046
GHC - Multi- rejected	0.842
Bi- chimera - Bi- rejected	0.028
Bi- chimera - Multi- chimera	0.842
Bi- chimera - Multi- rejected	0.033
Bi- rejected - Multi- chimera	0.033
Bi- rejected - Multi- rejected	0.754
Multi- chimera - Multi- rejected	0.046

Supplementary Table 11: Pairwise comparisons of Kaplan-Meier survival analyses between different colony types. p values are adjusted by Bonferroni correction.