Supplementary Material

Methodology for single-cell genetic analysis of planktonic foraminifera for studies of protist diversity and evolution

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1 Summary of sampling parameters and success rates for various morphospecies

Table 1: Summary of sampling parameters of various morphospecies of planktonic foraminifera. The average success rate was calculated as the median of the individual success rates per station for the respective species. The real success rate was calculated as the proportion out of all analysed individuals of that species that yielded positive results. *Globigerinoides ruber* combines the two chromotypes *G. ruber* (pink) and *G. ruber* (white). Species marked with an asterisk were used for the analysis of nominal parameters on amplification success rates.

Species	Mean sample size (n)	Total sample size (n)	Average success rate (%)	Real success rate (%)
Globigerinoides conglobatus	2	8	75	62
*Globigerinoides ruber**	11	941	36	43
Trilobatus sacculifer	8	983	25	26
*Orbulina universa**	10	272	100	78
*Globigerina bulloides**	15	1614	76	71
Globigerina falconensis	1	1	100	100
Globoturborotalita rubescens	7	55	0	16
Globigerinella siphonifera	8	1184	29	30
Turborotalita quinqueloba	5	386	28	34
Neogloboquadrina incompta	6	166	82	79
*Neogloboquadrina pachyderma**	19	2309	67	64
*Globoconella inflata**	17	714	80	69
Globorotalia menardii	8	169	63	53
Globorotalia scitula	1	4	0	25
*Globorotalia truncatulinoides**	20	456	86	80
Globorotalia hirsuta	2	10	100	60
Globorotalia ungulata	2	4	75	75
Neogloboquadrina dutertrei	3	87	80	64
Pulleniatina obliquiloculata	3	28	100	82

Candeina nitida	3	8	100	88
Globigerinita glutinata	2	90	100	82
Globigerinita uvula	2	41	100	78
Hastigerina pelagica	4	259	33	41
Bolivina variabilis	3	25	31	36

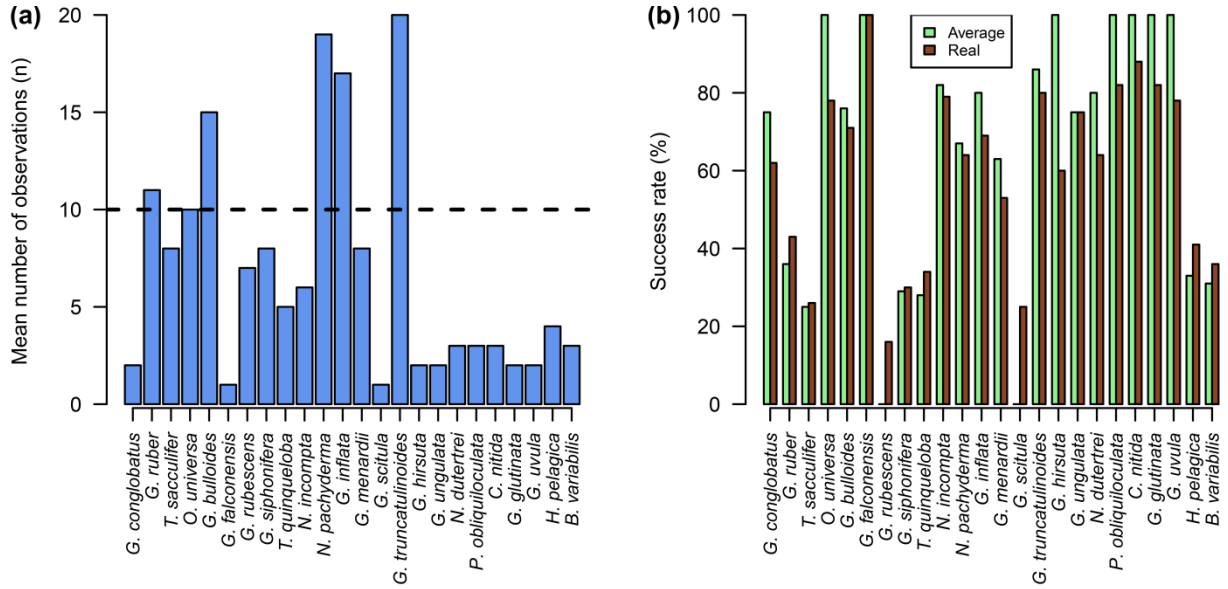

Figure 1: Summary of sampling parameters per morphospecies of planktonic foraminifera. (**a**) Mean number of specimens per sample. The dashed horizontal line marks the threshold of $n \geq 10$, which was the exclusion criterion for species in the factorial analyses. Only *G. ruber*, *O. universa*, *G. bulloides*, *N. pachyderma*, *G. inflata*, and *G. truncatulinoides* met this criterion. (**b**) Difference between average and real success rates per morphospecies. The average success rate is the median of the sample-wise success rates for that species, and is thus influenced by individual sample sizes. The real success rate is the proportion of all specimens of that morphospecies that yielded results in molecular analyses. Note that the real success rate is in most cases lower than the average success rate. However, differences are very small, even more so in the morphospecies with more than 10 specimens per sample on average which were exclusively used in this study.

2 Results of a pairwise NPMANOVA

Table 2: Results of a pairwise NPMANOVA between the six morphospecies of planktonic foraminifera tested for differences in success rates for molecular analyses. Comparisons which were significant at $\alpha = .05$ are marked with an asterisk.

Species 1	**Species 2**	**adj. *p*-value**
G. bulloides	*G. inflata*	.970

G. bulloides	*N. pachyderma*	.348
G. bulloides	*G. ruber*	.026*
G. bulloides	*G. truncatulinoides*	.348
G. bulloides	*O. universa*	.023*
G. inflata	*N. pachyderma*	.970
G. inflata	*G. ruber*	.039*
G. inflata	*G. truncatulinoides*	.899
G. inflata	*O. universa*	.026*
N. pachyderma	*G. ruber*	.043*
N. pachyderma	*G. truncatulinoides*	.348
N. pachyderma	*O. universa*	.008*
G. ruber	*G. truncatulinoides*	.023*
G. ruber	*O. universa*	.008*
G. truncatulinoides	*O. universa*	.026*