

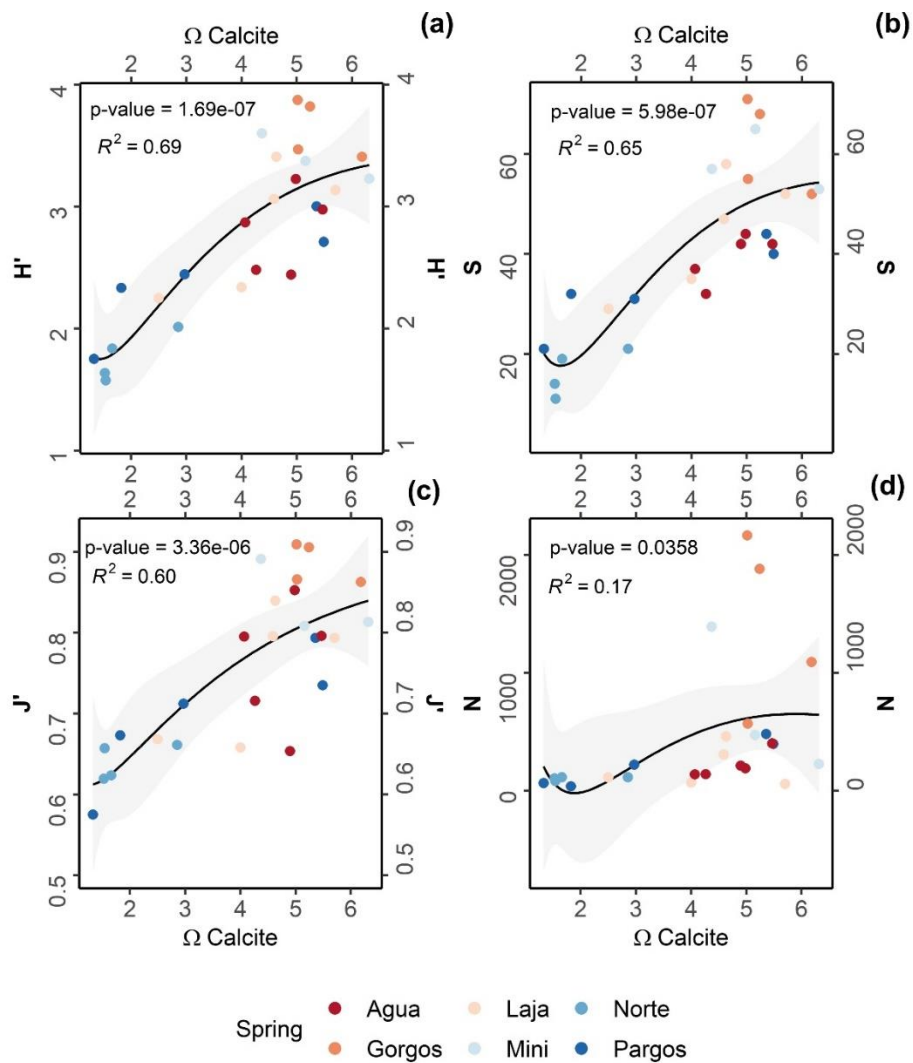
*Supplement of*

**Acidification impacts and acclimation potential of  
foraminifera**

Daniel François et al.

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**Figure S1** - Relationships between  $\Omega$ -Calcite and (a) Shannon-Weiner Diversity Index, (b) foraminiferal density, (c) Pielou's evenness, and (d) species richness. The black lines represent second-order polynomial model fits, and grey areas mark 95 % confidence intervals. Dashed lines demark predicted pH values at the end of this century following the Coupled Model Intercomparison Project Phase Six (CMIP6) predictions for Shared Socioeconomic Pathways (SSP1-2.6: 8.01 pH units; SSP2-4.5: 7.91 pH units; SSP3-7.0: 7.82 pH units, and SSP4: 7.73 pH units).



**Table S1 - Raw data of functional and test type groups.**

Sample ID	Agglutinated (%)	Opportunistic (%)	Small miliolids (%)	Small rotaliids (%)	Symbiont bearing (%)
1	9.1	0.0	27.8	37.5	25.6
2	16.4	0.0	45.3	18.8	19.5
3	11.6	0.0	47.3	21.4	19.6
4	15.2	0.0	31.9	35.1	17.8
6	19.5	0.0	18.4	11.4	50.8
7	9.8	0.6	20.2	23.1	46.2
8	10.7	0.4	22.2	20.4	46.2
9	7.6	0.7	22.9	28.4	40.4
10	6.3	0.7	20.1	25.0	47.8
12	7.3	2.2	37.7	20.5	31.9
13	4.0	2.4	37.3	26.5	29.7
14	2.3	1.2	46.7	26.5	23.3
15	2.2	4.0	42.0	27.6	24.2
16	9.1	0.0	31.0	34.5	25.4
17	11.0	1.9	41.6	24.0	21.4
18	8.3	0.5	37.6	28.8	24.9
19	8.4	1.9	30.4	34.6	24.3
20	5.1	2.6	38.7	20.9	32.3
21	1.5	0.4	22.7	61.7	13.6
22	1.3	0.4	35.0	50.9	12.4
23	1.6	0.0	40.5	42.1	15.9
24	1.2	1.2	58.5	28.9	10.3
25	0.0	1.4	39.5	44.9	14.1
44	9.5	1.3	33.2	32.8	23.3
45	10.5	3.5	36.8	31.4	17.8
46	6.5	1.6	34.5	38.3	18.9

**Table S2 - SIMPER results**

Assemblage	Av. similarity:	Species	Av.Abund	Av.Sim	Contrib%	Cum.%
a	82.14	<i>Archaias angulatus</i>	6.8	24.7	30	30
		<i>Quinqueloculina tricarinata</i>	3.6	12.3	15	45
		<i>Rotorbinella rosea</i>	3.6	10.7	13	58
		<i>Cyclorbiculina compressa</i>	2.7	9.5	12	70
		<i>Amphistegina gibbosa</i>	2.7	8.6	10	80
		<i>Valvulina oviedoiana</i>	2.3	7.8	9	90
		<i>Quinqueloculina disparilis</i>	1.6	4.8	6	95
b	75.36	<i>Archaias angulatus</i>	4.4	16.5	22	22
		<i>Amphistegina gibbosa</i>	3.4	14.5	19	41
		<i>Rotorbinella rosea</i>	1.5	6.8	9	50
		<i>Valvulina oviedoiana</i>	1.9	6.6	9	59
		<i>Cyclorbiculina compressa</i>	1.3	6.1	8	67
		<i>Quinqueloculina disparilis</i>	1.2	5.6	7	74
		<i>Agglutinella compressa</i>	1.2	5.3	7	81
		<i>Planorbulina mediterraneensis</i>	0.9	3.4	5	86
		<i>Asterigerina carinata</i>	0.8	3.1	4	90
g	70.7	<i>Archaias angulatus</i>	7.1	8.9	13	13
		<i>Rotorbinella rosea</i>	6.2	6.7	9	22
		<i>Asterigerina carinata</i>	5.6	5.8	8	30
		<i>Quinqueloculina disparilis</i>	4.7	5.4	8	38
		<i>Amphistegina gibbosa</i>	5.4	5.3	7	45
		<i>Rotorbis auberii</i>	4.9	4.9	7	52
		<i>Laevipeneroplis proteus</i>	3.2	3.4	5	57
		<i>Clavulina angularis</i>	2.8	3.2	4	62
		<i>Peneroplis pertustus</i>	2.7	2.7	4	65
		<i>Textularia agglutinans</i>	2.7	2.7	4	69
		<i>Agglutinella compressa</i>	2.5	2.3	3	72
		<i>Valvulina oviedoiana</i>	2.2	2.3	3	76
		<i>Cyclorbiculina compressa</i>	2.3	2.1	3	79
		<i>Rosalina cf. floridana</i>	1.9	1.8	3	81
		<i>Lachlanella carinata</i>	1.6	1.4	2	83
		<i>Sorites marginalis</i>	1.8	1.3	2	85
		<i>Quinqueloculina bosciana</i>	2.0	1.1	2	87
<i>Quinqueloculina subpoeyana</i>	1.9	1.1	2	88		
<i>Articulina pacifica</i>	1.6	1.1	1	90		
<i>Schlumbergerina alveoliniformis</i>	1.6	1.0	1	91		
f	74.03	<i>Rotorbinella rosea</i>	11.4	7.1	10	10
		<i>Asterigerina carinata</i>	9.9	6.6	9	18

		<i>Archaias angulatus</i>	8.8	5.5	7	26
		<i>Rotorbis auberii</i>	8.0	5.5	7	33
		<i>Laevipeneroplis proteus</i>	7.5	4.8	6	40
		<i>Quinqueloculina disparilis</i>	7.4	4.2	6	45
		<i>Rosalina cf. floridana</i>	6.7	4.2	6	51
		<i>Quinqueloculina bosciana</i>	6.0	4.0	5	57
		<i>Peneroplis pertustus</i>	6.1	3.9	5	62
		<i>Textularia agglutinans</i>	5.4	3.7	5	67
		<i>Articulina pacifica</i>	5.2	3.6	5	72
		<i>Quinqueloculina subpoeyana</i>	6.0	3.6	5	76
		<i>Amphistegina gibbosa</i>	4.8	3.2	4	81
		<i>Clavulina angularis</i>	5.3	2.4	3	84
		<i>Miliolinella elongata</i>	6.2	2.4	3	87
		<i>Sorites marginalis</i>	3.7	2.4	3	91
e	84.93	<i>Asterigerina carinata</i>	12.0	6.7	8	8
		<i>Trochulina sp</i>	10.3	5.8	7	15
		<i>Sorites marginalis</i>	8.8	5.0	6	21
		<i>Laevipeneroplis proteus</i>	8.9	4.9	6	26
		<i>Rosalina cf. R. floridana</i>	8.3	4.6	5	32
		<i>Rotorbis auberii</i>	9.2	4.4	5	37
		<i>Quinqueloculina subpoeyana</i>	9.0	4.3	5	42
		<i>Peneroplis pertustus</i>	7.0	3.9	5	46
		<i>Planogypsina acervalis</i>	8.6	3.9	5	51
		<i>Quinqueloculina bosciana</i>	7.4	3.9	5	56
		<i>Agglutinella compressa</i>	6.5	3.5	4	60
		<i>Articulina pacifica</i>	7.2	3.5	4	64
		<i>Peneroplis planatus</i>	7.4	3.5	4	68
		<i>Rotorbinella rosea</i>	6.2	3.5	4	72
		<i>Archaias angulatus</i>	6.4	3.3	4	76
		<i>Rosalina globularis</i>	5.5	3.1	4	80
		<i>Quinqueloculina conf. Q. distorquata</i>	5.0	2.6	3	83
		<i>Textularia agglutinans</i>	5.4	2.6	3	86
		<i>Affinetrina quadrilateralis</i>	4.6	2.4	3	89
		<i>Cibicidoides sp</i>	4.8	2.4	3	92
c	66.01	<i>Archaias angulatus</i>	5.3	14.3	22	22
		<i>Amphistegina gibbosa</i>	2.2	5.9	9	31
		<i>Valvulina oviedoiana</i>	1.8	5.5	8	39
		<i>Asterigerina carinata</i>	2.0	5.4	8	47
		<i>Rotorbinella rosea</i>	2.5	4.9	7	55
		<i>Quinqueloculina disparilis</i>	2.1	4.4	7	61
		<i>Rotorbis auberii</i>	1.3	3.9	6	67

		<i>Cyclorbiculina compressa</i>	0.9	2.7	4	71
		<i>Rosalina globularis</i>	1.0	2.6	4	75
		<i>Clavulina angularis</i>	0.9	2.3	4	79
		<i>Rosalina cf. R. floridana</i>	0.9	2.0	3	82
		<i>Articulina pacifica</i>	0.7	2.0	3	85
		<i>Quinqueloculina conf. Q. distorta</i>	1.1	1.9	3	88
		<i>Lachlanella carinata</i>	0.9	1.7	3	90
d	70.26	<i>Rotorbinella rosea</i>	7.6	11.4	16	16
		<i>Archaias angulatus</i>	4.6	6.9	10	26
		<i>Cibicidoides sp</i>	3.0	4.3	6	32
		<i>Sorites marginalis</i>	2.6	3.9	6	38
		<i>Affinetrina quadrilateralis</i>	2.6	3.9	6	43
		<i>Quinqueloculina cf. berthelotiana</i>	2.6	3.7	5	48
		<i>Quinqueloculina carinatastriata</i>	3.0	3.7	5	54
		<i>Laevipeneroplis proteus</i>	2.3	3.2	5	58
		<i>Peneroplis pertustus</i>	2.4	3.2	5	63
		<i>Miliolinella elongata</i>	2.0	3.2	4	67
		<i>Quinqueloculina bosciana</i>	2.4	3.1	4	72
		<i>Trochulina sp</i>	2.3	2.9	4	76
		<i>Lachlanella carinata</i>	1.7	2.6	4	80
		<i>Pseudotriloculina linneiana</i>	1.8	2.5	4	83
		<i>Asterigerina carinata</i>	1.7	2.5	4	87
		<i>Spiroloculina corrugata</i>	1.6	1.7	2	89
		<i>Textularia agglutinans</i>	0.9	1.1	2	91

**Table S3 - Raw data of taphonomical, assemblage average test size and taxonomic metrics.**

Sample ID	Dissolved %	Broken %	S	N	J'	H'(loge)	Size
1	80	70	19	114	0.62	1.8	0.83
2	80	64	14	103	0.62	1.6	0.98
3	85	80	11	80	0.66	1.6	0.99
4	79	75	21	114	0.66	2.0	0.84
6	78	36	21	63	0.58	1.8	0.91
7	77	47	32	36	0.67	2.3	0.94
8	69	37	31	220	0.71	2.4	0.52
9	62	35	44	480	0.79	3.0	0.30
10	68	41	40	396	0.73	2.7	0.31
12	64	38	55	568	0.87	3.5	0.20
13	61	34	52	1092	0.86	3.4	0.15
14	53	29	68	1882	0.91	3.8	0.14
15	52	27	71	2167	0.91	3.9	0.15
16	78	36	29	112	0.67	2.3	0.59
17	71	43	35	68	0.66	2.3	0.76
18	68	43	52	56	0.79	3.1	0.55
19	69	40	47	307	0.80	3.1	0.31
20	61	33	58	460	0.84	3.4	0.25
21	75	54	42	211	0.65	2.4	0.24
22	68	57	32	139	0.72	2.5	0.30
23	68	43	37	138	0.80	2.9	0.21
24	53	28	44	189	0.85	3.2	0.13
25	68	47	42	400	0.80	3.0	0.17
44	63	43	53	225	0.81	3.2	0.50
45	46	32	57	1392	0.89	3.6	0.16
46	51	28	65	471	0.81	3.4	0.32

**Table S4 - Raw data of test density, calcite lamellae diameter, test volume, and test diameter measured in *Archaias angulatus* individuals living at low (7.1 pH units) and high-pH conditions (8.1 pH units) at spring Gorgos.**

Individual ID	pH	Density g/cm <sup>3</sup>	Chamber wall thickness mm <sup>3</sup>	Volume mm <sup>3</sup>	Test diameter mm
1	7.96	2.17	0.048	0.10521	0.826
2	7.96	2.79	0.037	0.05552	0.750
3	7.96	2.29	0.041	0.03342	0.794
4	7.96	2.49	0.053	0.03757	0.819
5	7.1	1.28	0.044	0.04886	0.819
6	7.1	1.34	0.054	0.04612	0.851
7	7.1	1.35	0.051	0.03704	0.693
8	7.1	1.32	0.055	0.06280	0.737