SUPPLEMENTARY MATERIALS
Davenport, et al. "Fitness effects of spontaneous mutations in a warming world."
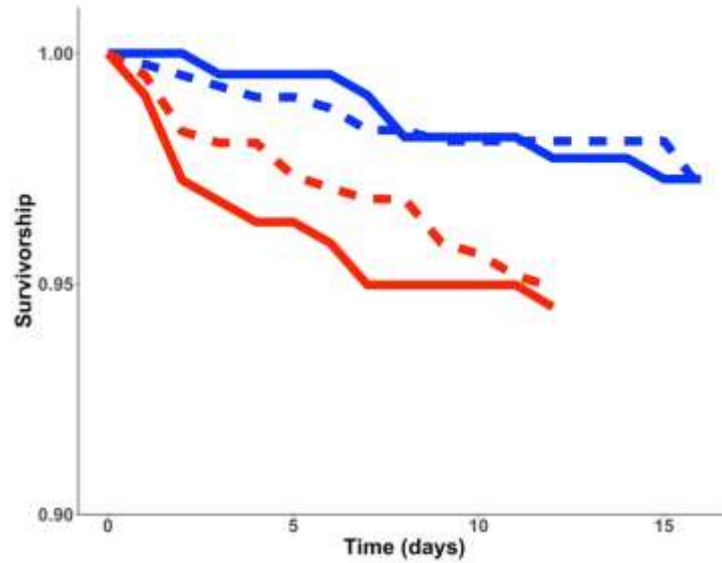
Survivorship

Figure S1: Survivorship remained high (>93%) for both MA lines (dotted lines) and control lines (solid lines) through the production of four clutches. *D. pulex* in the warmer environment (shown in red) produced their first four clutches by day 12 and had slightly lower survivorship than *D. pulex* in the cooler environment (shown in blue).

Block Effects for Clutch Size

Mutational History	Temperature	Clutch	Block 1 Average	Block 2 Average	Combined Average	Block Effect
Control	20	1	7.02	7.08	7.05	-0.06
Control	20	2	17.04	17.84	17.44	**-0.79**
Control	20	3	26.35	27.54	26.94	**-1.18**
Control	20	4	28.73	28.42	28.58	**0.31**
Control	24	1	7.07	6.99	7.03	0.08
Control	24	2	13.03	16.20	14.61	**-3.17**
Control	24	3	21.32	26.38	23.85	**-5.06**
Control	24	4	21.00	25.83	23.41	**-4.83**
MA	20	1	7.00	6.64	6.82	0.36
MA	20	2	13.88	16.07	14.98	**-2.19**
MA	20	3	21.74	21.90	21.82	**-0.15**
MA	20	4	24.84	26.80	25.82	**-1.96**
MA	24	1	6.70	6.68	6.69	0.02
MA	24	2	13.21	14.43	13.82	**-1.22**
MA	24	3	18.57	21.32	19.95	**-2.75**
MA	24	4	16.35	20.80	18.58	**-4.45**

Table A: We calculated block effects for clutch size using averages for block 1 and block 2. (Block effect = Block 1 Average – Block 2 Average). Significant block effects are bolded.

Clutch Size – Block Effect Interaction Tests

There were no significant interactions with block for first clutch (block x mutational history: $F = 0.1281$, $df = 1, 116$, $p = 0.0.721$; block x temperature: $F = 0.0.0424$, $df = 1, 116$, $p = 0.837$; block x mutational history x temperature: $F = 0.249$, $df = 1, 116$, $p = 0.619$), second clutch (block x mutational history: $F = 0.0438$, $df = 1, 116$, $p = 0.835$; block x temperature: $F = 0.281$, $df = 1, 116$, $p = 0.597$; block x mutational history x temperature: $F = 1.578$, $df = 1, 116$, $p = 0.212$), third clutch (block x mutational history: $F = 0.818$, $df = 1, 116$, $p = 0.368$; block x temperature: $F = 3.071$, $df = 1, 116$, $p = 0.0823$; block x mutational history x temperature: $F = 0.120$, $df = 1, 116$, $p = 0.730$), or fourth clutch (block x mutational history: $F = 0.203$, $df = 1, 115$, $p = 0.653$; block x temperature: $F = 3.313$, $df = 1, 115$, $p = 0.0713$; block x mutational history x temperature: $F = 0.398$, $df = 1, 115$, $p = 0.529$).

Block Effects for Clutch Timing

Mutational History	Temperature	Clutch	Block 1 Average	Block 2 Average	Combined Average	Block Effect
Control	20	1	8.22	8.04	8.13	**0.18**
Control	20	2	11.20	10.92	11.06	**0.28**
Control	20	3	14.13	13.70	13.92	**0.43**
Control	20	4	17.13	16.64	16.89	**0.48**
Control	24	1	6.35	6.02	6.18	**0.32**
Control	24	2	8.46	8.04	8.25	**0.41**
Control	24	3	10.51	9.99	10.25	**0.52**
Control	24	4	12.57	12.07	12.32	**0.50**
MA	20	1	8.74	8.30	8.52	**0.45**
MA	20	2	11.42	11.10	11.26	**0.32**
MA	20	3	14.28	13.83	14.05	**0.45**
MA	20	4	17.16	16.45	16.81	**0.71**
MA	24	1	6.46	6.22	6.34	**0.23**
MA	24	2	8.49	8.23	8.36	**0.26**
MA	24	3	10.47	10.16	10.31	**0.31**
MA	24	4	12.58	12.35	12.46	**0.23**

Table B: We calculated block effects for clutch timing using averages for block 1 and block 2. (Block effect = Block 1 Average – Block 2 Average). Significant block effects were observed for all clutches, and block 1 produced offspring later than block 2 in every case.

Clutch Timing – Block Effect Interaction Tests

There were no significant interactions between factors for the timing of the first clutch (block x mutational history: $F = 0.1378$, $df = 1, 116$, $p = 0.71115$; block x temperature: $F = 0.0201$, $df = 1, 116$, $p = 0.88764$; block x mutational history x temperature: $F = 0.5422$, $df = 1, 116$, $p = 0.46301$), second clutch (block x mutational history: $F = 0.0443$, $df = 1, 116$, $p = 0.83374$; block x temperature: $F = 0.0176$, $df = 1, 116$, $p = 0.89478$; block x mutational history x temperature: $F = 0.1188$, $df = 1, 116$, $p = 0.73092$), third clutch (block x mutational history: $F = 0.0872$, $df = 1, 116$, $p = 0.768235$; block x temperature: $F = 0.0057$, $df = 1, 116$, $p = 0.939957$; block x mutational history x temperature: $F = 0.1413$, $df = 1, 116$, $p = 0.7077$), or fourth clutch (block x mutational history: $F = 0.0068$, $df = 1, 115$, $p = 0.9345$; block x temperature: $F = 0.5893$, $df = 1, 115$, $p = 0.4443$; block x mutational history x temperature: $F = 0.6747$, $df = 1, 115$, $p = 0.4131$).