

Supplementary Information

# Experimental coevolution of male and female genital morphology

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**Supplementary Table S1** | Nested ANOVA demonstrating no significant evolutionary divergence in centroid size of the female genital pits.

Variable	MS	df	F	P
selection (s)	96	1	0.01	0.918
replicate[selection]	7998	4	3.83	0.050
generation (g)	70809	2	33.93	<0.001
g × s	6249	2	2.99	0.107
g × replicate[selection]	2088	8	1.44	0.179
error	1454	421		

**Supplementary Table S2** | Nested ANOVA demonstrating evolutionary divergence in the geometric morphometric configuration of the female genital pits.

Variable	MS <sup>1</sup>	df	F	P
<b>RW1</b>				
selection (s)	1.73	1	23.51	0.009
replicate[selection]	2.23	4	0.42	0.792
generation (g)	11.04	2	2.10	0.183
g × s	12.60	2	1.85	0.218
g × replicate[selection]	6.86	8	4.78	<0.001
centroid	30.34	1	21.15	<0.001
error	1.43	420		
<b>RW2</b>				
selection (s)	0.22	1	0.23	0.656
replicate[selection]	0.94	4	0.58	0.687
generation (g)	6.23	2	3.97	0.058
g × s	0.23	2	0.14	0.869
g × replicate[selection]	1.64	8	1.82	0.071
centroid	1.07	1	1.18	0.277
error	0.90	420		
<b>RW3</b>				
selection (s)	0.66	1	0.56	0.497
replicate[selection]	1.18	4	0.50	0.735
generation (g)	0.99	2	0.45	0.653
g × s	0.48	2	0.20	0.819
g × replicate[selection]	2.37	8	4.24	<0.001
centroid	0.96	1	1.73	0.189
error	0.56	420		

<sup>1</sup> Mean Squares (MS) ×10<sup>-3</sup>

**Supplementary Table S3** | Nested ANOVA demonstrating no significant evolutionary divergence in centroid size of the male aedeagus.

Variable	MS	df	F	P
selection	393	1	2.98	0.157
replicate[selection]	132	4	0.91	0.458
error	144	132		

**Supplementary Table S4** | Nested ANOVA demonstrating evolutionary divergence in geometric morphometric shape of the male aedeagus.

Variable	MS <sup>1</sup>	df	F	P
RW1				
selection	1.73	1	0.77	0.425
replicate[selection]	2.23	4	1.04	0.392
centroid	11.04	1	51.15	<0.001
error	20.09	131		
RW2				
selection	0.53	1	0.73	0.440
Replicate[selection]	0.73	4	1.43	0.226
centroid	1.71	1	3.35	0.069
error	0.51	131		
RW3				
selection	1.43	1	11.07	0.022
Replicate[selection]	0.12	4	0.34	0.850
centroid	3.95	1	11.07	0.001
error	0.36	131		

<sup>1</sup> Mean Squares (MS)  $\times 10^{-3}$