

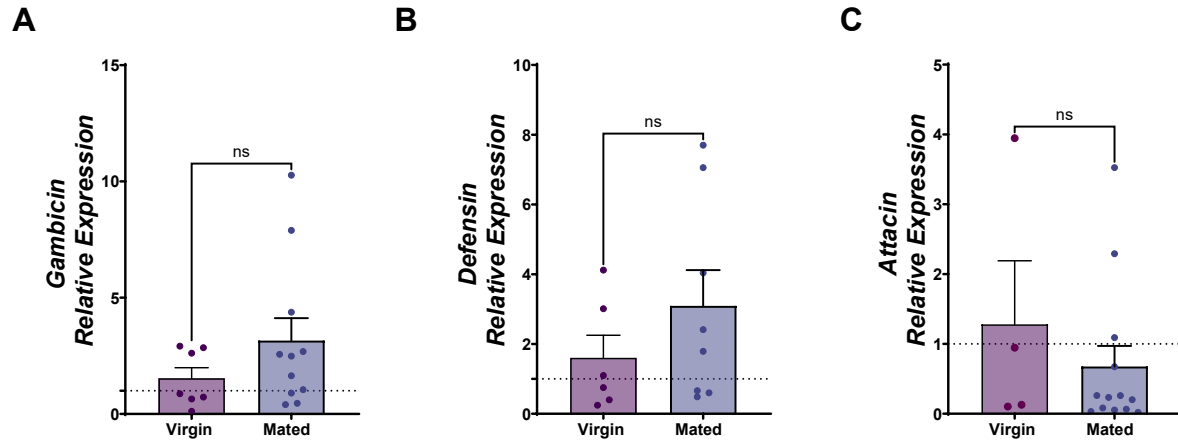
Supplementary Information: From lab to field: Mating-dependent gut enlargement and immune suppression in field-caught *Aedes aegypti*

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Supplementary Table 1. qRT-PCR Primer List.

Gene	Primer name	Sequence	Reference
Ribosomal protein S7	AeaS7_F	GGGACAAATCGGCCAGGCTATC	https://doi.org/10.1038/s42003-024-06334-y
	AeaS7_R	TCGTGGACGCTTCTGCTTGTTG	
Defensin	AeaDef_F	GATTCGGCGTTGGTGATAGT	
	AeaDef_R	TTATTCAATTCCGGCAGACG	
Gambicin	AeaGamb_F	GCCAAAACCTGTTCCCTCTTG	
	AeaGamb_R	CGATGTAGCATTCCGGTGATG	
Attacin	AeaAtt_F	TTGGCAGGCACGGAATGTCTTG	
	AeaAtt_R	TGTTGTCTGGGACCGGGAAGTG	
Bacterial 16S	16S_F	TCCTACGGGAGGCAGCAGT	
	16S_R	GGACTACCAGGGTATCTAATCCTGTT	
Cecropin	AeaCec_F	TCACAAAGTTATTTCTCTGATCG	This study
	AeaCec_R	CGATGTAGCATTCCGGTGATG	
Kr-h1	Aea Kr-h1_F	ACTTTGCACCGGCTTCACA	https://doi.org/10.1186/1756-3305-5-148
	Aea Kr-h1_R	ACTTGTCGCACGAGATCG	
Myd88	Aa Myd88_F	CGATGCGTTCAATTTTGTTTG	
	Aa Myd88_R	CACCGCTCAGAAATCAGCTT	
Cactus	Aa Cactus_F	TCTTGCGTTGAAGTGAGTGG	
	Aa Cactus_R	GACCCCTCTGAAAGGGAAAGG	
Rel2	Aa REL2_F	TCTGTCTGGCAGATGAAGTGA	
	Aa REL2_R	TCTGTCTGGCAGATGAAGTGA	
IMD	Aa IMD_F	TCGTCAAACCTCGGTTTTCCT	
	Aa IMD_R	TGGCGGAGTTGAAGGTAAAG	
STAT	Aa STAT_F	CACACAAAAAGGACGAAGCA	
	Aa STAT_R	TCCAGTTCCCCTAAAGCTCA	
TEP	Aa TEP_F	ATTTTGTACGGCTTTTGTGG	
	Aa TEP_R	TGGATTACTTGCCCCACTTC	

AMP Expression in the mosquito carcass of field collected mosquitoes (lab-reared)



Supplementary Figure 1 | Antimicrobial peptide expression in carcass tissue of virgin and mated laboratory-reared *Aedes aegypti* females. Relative expression of *gambicin* (A), *defensin A* (B), and *attacin* (C) in carcass samples — encompassing fat body, reproductive tract, and remaining somatic tissues — from virgin and mated females reared from field-collected immature stages. No significant differences in expression were detected between groups for any of the three AMPs assessed. Means of *gambicin* and *defensin* trended slightly higher in mated females compared to virgins. These results are consistent with the interpretation that post-mating immune suppression is localized to the midgut epithelium rather than reflected in a systemic reduction of AMP expression across somatic tissues. Bars represent mean $\pm$ SEM; dots correspond to individual biological replicates. ns = not significant (t-test).