An. gambiae

	G			C			A			A			G		
	der	**hets**	**wt**	**der**	**hets**	**wt**	**der**	**hets**	**wt**	**der**	**hets**	**wt**	**der**	**hets**	**wt**
2013	0.07	0.52	0.40	0.10	0.48	0.43	0.02	0.62	0.36	0.05	0.57	0.38	0.12	0.50	0.38
2015	0.12	0.40	0.48	0.08	0.42	0.50	0.18	0.31	0.51	0.12	0.37	0.51	0.13	0.38	0.50
2018	0.10	0.45	0.45	0.10	0.43	0.48	0.10	0.58	0.33	0.10	0.45	0.45	0.10	0.53	0.38

An. coluzzii

	G			C			A			A			G		
	der	**hets**	**wt**	**der**	**hets**	**wt**	**der**	**hets**	**wt**	**der**	**hets**	**wt**	**der**	**hets**	**wt**
2011	0.04	0.30	0.65	0.04	0.26	0.70	0.04	0.13	0.83	0.13	0.13	0.74	0.17	0.30	0.52
2012	0.10	0.39	0.51	0.09	0.39	0.52	0.07	0.42	0.51	0.09	0.42	0.49	0.12	0.51	0.38
2014	0.07	0.37	0.56	0.09	0.37	0.54	0.13	0.33	0.54	0.14	0.30	0.56	0.15	0.48	0.37
2016	0.17	0.37	0.46	0.13	0.35	0.52	0.13	0.35	0.52	0.11	0.30	0.59	0.10	0.41	0.49
2018	0.24	0.44	0.32	0.18	0.39	0.42	0.12	0.59	0.29	0.18	0.36	0.45	0.31	0.47	0.22

der = derived
hets = heterozygote
wt = wild type

Supplementary Table 1: Sweep frequencies. Frequencies of derived (swept SNP), heterozygote and wild type SNPs and each locus, for each year for both *An. gambiae* and *An. coluzzii* .

Supplementary Table 2: Graphical Data with corresponding statistics. For each significant result, the p value and mean data are shown for each graphical figure in the paper. Each figure is separated by a bold underline, with the figure the statistics refer to specified above the said line.

Tiassale vs N'Gousso

Transcript	$\Delta\Delta ct_\mu$	p-value
SAP2	12.43	2.65E-04
CSP6	3.79	3.16E-02

Tiassale vs Kisumu

Transcript	$\Delta\Delta ct_\mu$	p-value
SAP2	6.48	1.19E-03
CSP1	2.56	3.64E-02
CSP5	4.24	1.83E-03
CSP6	5580.03	1.73E-03

Statistics and mean ddCT values used in Extended Data Figure 2

Tiassale

	Antennae		Head		Legs		Midgut		Malpighian Tubules		Reproductive Tissue		Abdomen Carcass	
	$\Delta\Delta ct_\mu$	p-value	$\Delta\Delta ct_\mu$	p-value	$\Delta\Delta ct_\mu$	p-value	$\Delta\Delta ct_\mu$	p-value	$\Delta\Delta ct_\mu$	p-value	$\Delta\Delta ct_\mu$	p-value	$\Delta\Delta ct_\mu$	p-value
SAP1					83.41	0.024	0.0799	0.047						
SAP2	0.284	0.00813	4.1	<0.001	35.77	<0.001	0.015	<0.001	0.0365	<0.001	0.087	<0.001	0.184	<0.001
SAP3			5.03	0.00213	9.05	<0.001	0.0763	<0.001					0.066	<0.001
CSP1			5.04	0.00191	14.24	<0.001	0.301	0.00652	0.327	0.00891			3.49	0.00891
CSP3	513.86	<0.001	17.85	<0.001			0.149	<0.001	0.307	<0.001	0.0978	<0.001	0.26	<0.001
CSP4									0.05	0.0217	0.051	0.0284		
CSP5	20.28	<0.001	0.039	<0.001	42.03	<0.001	0.0787	<0.001	0.172	<0.001	0.317	0.0049		
CSP6					11.74	<0.001	0.0761	0.0094			3.66	0.0153		

N'Gousso

	Antennae		Head		Legs		Midgut		Malpighian Tubules		Reproductive Tissue		Abdomen Carcass	
	$\Delta\Delta ct_\mu$	p-value	$\Delta\Delta ct_\mu$	p-value	$\Delta\Delta ct_\mu$	p-value	$\Delta\Delta ct_\mu$	p-value	$\Delta\Delta ct_\mu$	p-value	$\Delta\Delta ct_\mu$	p-value	$\Delta\Delta ct_\mu$	p-value
SAP1					45.65	<0.001	0.132	0.0112						
SAP2			6.84	<0.001	53.39	<0.001	0.0333	<0.001	0.151	0.0242	0.0689	0.0027	0.15	0.0196
SAP3			10.24	0.0157	19.16	0.0016	0.0268	<0.001	0.0454	<0.001			0.737	<0.001
CSP1					1.92	0.0447							4.46	0.0351
CSP3	2701.75	<0.001	40.22	<0.001			0.042	<0.001	0.0253	<0.001	0.0144	<0.001	0.0000746	<0.001
CSP4							0.147	0.02438	0.1	0.00657				
CSP5					26.92	0.0208	0.0757	0.0029						
CSP6					35.49	<0.001								

Statistics and mean ddCT values used in Figure 1a

Tiassale post-exposure

	30 minutes		1 hour		2 hours		4 hours		24 hours		48 hours	
	$\Delta\Delta ct_\mu$	p-value	$\Delta\Delta ct_\mu$	p-value	$\Delta\Delta ct_\mu$	p-value	$\Delta\Delta ct_\mu$	p-value	$\Delta\Delta ct_\mu$	p-value	$\Delta\Delta ct_\mu$	p-value
SAP1			0.298	0.0251							0.263	0.0121
SAP2					2.35	0.03913	11.32	<0.001	5.66	<0.001	2.98	0.00879
SAP3							5.25	<0.001	4.42	0.0028		
CSP1												
CSP3												
CSP4									5.83	0.00213	6.96	0.00102
CSP5	0.208	0.0217	0.169	0.0016	0.525	0.0013					0.213	0.0163
CSP6			12.75	0.0416	6.59			0.0055	16.622	0.0077	17.16	0.0055

Statistics and mean ddCT values used in Figure 1b; Extended Data 3a.

SAP2

	Mortality	
	Change	p-value
Deltamethri	11.7% to 79%	2.03E-05
Permethrin	5.2% to 24.7	1.51E-03
Alpha-cyper	2.8% to 10.8	7.72E-02
Banfora Del	13.19% to 45	2.19E-02

CSP6

	Mortality	
	Change	p-value
Deltamethri	11.7% to 31.	4.74E-02

Transgenics

	Mortality	
	Change	p-value
Permethrin	84.3% to 67.	2.29E-02

Statistics and mean mortality values used in Figure 2a; Extended Data Figure 5 and Figure 2b.

Supplementary Table 3: Primer List. Primers used for both synthesis of dsRNA constructs and qPCR.

RNAi Primers

ID	Forward	Reverse
dsSAP2	taatacgactcactatagggTTCTCGTTCCGGTTGCTTCA	taatacgactcactatagggTAGTAGACCCCATTCCCCACTT
dsSAP3	taatacgactcactatagggATGAAATTCTTCGTCGTTGTCG	taatacgactcactatagggTTCTCCGGGTCGTACTTCTTCT
dsCSP4	taatacgactcactatagggTGTAGCCCTTCTGACGGTTT	taatacgactcactatagggTTCTCCAGCACGCACATGAT
dsCSP6	taatacgactcactatagggGCACAGCACAGCAACCTTTT	taatacgactcactatagggTTCCCCTTTTCAGCCAGCAT
dsGFP	taatacgactcactatagggAGAACGTAAACGGCCACAAGTTC	taatacgactcactatagggAGACTTGTACAGCTCGTCCATGCC

qPCR Primers

ID	Forward	Reverse
SAP1	ACGTCAACACAGAACGATCAAC	TTGCTGGTGTACTTATCCTGGG
SAP2	GCAGCTTGAGAGCGTCTTCT	GAAAGCGATGGCGACGAACA
SAP3	AGTGTAGCGAGAAGCAGAAGAG	GCGGTACTTGTTGACGTAGATG
CSP1	AGCCTTTTCGTGTCTTGTTTCA	CGGTACGCTGTCTAGATTCACT
CSP3	AACCTACGTCACCAAGTACGAT	ATCGGGAAGGTTGTCTTTCAGC
CSP4	GCTATCAGCGGCAGTTATTGTG	AGCCGGTTAATATTCTGGCTGT
CSP5	GCACGGACACTCTACAGTACAA	TCGGGCAGAATACGTTTCAGAT
CSP6	GACAGTTTCGTTCTGTGCCG	CCTTGCCAGTGGTCTTTTGC
S7	AGAACCAGCAGACCACCATC	GCTGCAAACTTCGGCTATTC
EF	GGCAAGAGGCATAACGATCAATGCG	GTCCATCTGCGACGCTCCGG