Supplementary Material

Differential hatching, development, oviposition, and longevity patterns among Colombian *Aedes aegypti* populations

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Table S1. Life cycle (days) from egg to adult (male and female) of Colombian *Ae. aegypti* from different regions reared at 28±1°C temperature, 80±5% relative humidity, and 12 h light: 12 h dark photoperiod. Minimum (Min); Maximum (Max); Standard deviation (SD). Pupation time is the mean development time from L4 to pupae. Time of emergence is the mean development time from pupae to adults (male or female).

	Bello			Neiva			Itagüí			Riohacha			Rockefeller		
Development parameters	Min	Max	Mean±SD	Min	Max	Mean±SD	Min	Max	Mean±SD	Min	Max	Mean±SD	Min	Max	Mean±SD
Egg to L1 (Eclosion)	1.0	10.0	1.22 ± 0.61	1.0	10.0	1.39 ± 1.49	1.0	21.0	1.93 ± 1.81	1.0	25.0	2.49 ± 3.3	1.0	21.0	2.19 ± 2.33
L1+L2 to L3	2.0	11.0	2.09 ± 0.63	2.0	10.0	3.13 ± 1.43	2.0	10.0	3.65 ± 1.83	3.0	27.0	6.26 ± 3.05	2.0	25.0	4.27 ± 2.70
L3 to L4	1.0	13.0	1.14 ± 0.87	1.0	10.0	2.64 ± 1.57	1.0	12.0	3.25 ± 1.84	1.0	25.0	4.14 ± 3.04	1.0	26.0	3.04 ± 2.41
L1+L2 to L4 (Total larval development time)	3.0	16.0	3.17 ± 1.03	3.0	20.0	5.70 ± 2.87	3.0	21.0	6.84 ± 3.53	5.0	52.0	10.40 ± 6.03	3.0	42.0	7.18 ± 4.64
L4 to Pupae (Pupation time)	2.0	11.0	3.11 ± 0.73	2.0	10.0	6.49 ± 1.49	2.0	26.0	5.25 ± 2.02	1.0	24.0	4.38 ± 2.99	0.0	19.0	3.90 ± 2.03
Pupae to Male (Male emergence time)	2.0	5.0	3.23 ± 0.53	1.0	11.0	5.46 ± 1.86	2.0	10.0	4.46 ± 1.83	1.0	25.0	5.35 ± 3.37	2.0	10.0	4.16 ± 1.93
Pupae to Female (Female emergence time)	3.0	12.0	3.81 ± 0.98	2.0	11.0	6.41 ± 1.63	2.0	10.0	5.24 ± 1.59	2.0	25.0	5.36 ± 2.48	2.0	21.0	5.09 ± 2.32
Average age Egg to Male	8.0	50.0	10.79 ± 3.37	7.0	51.0	19.11 ± 7.84	8.0	79.0	18.54 ± 9.33	7.0	126.0	22.62 ± 15.75	6.0	101.0	17.56 ± 11.4
Average age Egg to Female	9.0	57.0	11.37 ± 3.82	8.0	51.0	20.06 ± 7.61	8.0	79.0	19.32 ± 9.09	8.0	126.0	22.63 ± 14.86	6.0	112.0	18.49 ± 11.79

Table S2. Age specific life table of 100 cohort eggs in each *Ae. aegypti* population. Mosquitoes were reared at 28±1°C temperature, 80±5% relative humidity, and 12 h light: 12 h dark photoperiod. Mean ± standard deviation (SD) of four to six replicates are shown. One way analysis of variance (ANOVA) was conducted followed by a Bonferroni post- hoc test to account for multiple comparisons between *Ae. aegypti* populations. Means in the same row followed by the same letters are not significantly different ($p > 0.05$). Proportion of age-specific survivorship: l_x. Proportion of individuals who die during the age interval (x) to ($x + 1$): d_x. Age-specific mortality rate: q_x. Killing power: k_x. Average of the probability of survival between two successive ages: L_x. Total number of days remaining to live for survivors of the cohort, when it reaches age x, until the last member dies at age m: T_x. Life expectancy, i.e., the mean number of days remaining to the survivors at age x: e_x.

Parameters	Developmental stage (*x*)	Bello	Neiva	Itagüí	Riohacha	Rockefeller
lx	Egg	1.00 ± 0.00^{a}	1.00 ± 0.00^{a}	1.00 ± 0.00^{a}	1.00 ± 0.00^{a}	1.00 ± 0.00^{a}
	L1+L2	0.988 ± 0.015^{a}	0.898 ± 0.022^{b}	0.968 ± 0.033^{a}	0.984 ± 0.009^{a}	0.988 ± 0.15^{a}
	L3	0.960 ± 0.034^{a}	0.883 ± 0.035^{b}	0.938 ± 0.04^{ab}	0.974 ± 0.017^{a}	0.963 ± 0.021^{a}
	L4	0.935 ± 0.051^{ab}	0.865 ± 0.021^{a}	0.924 ± 0.044^{ab}	0.974 ± 0.017^{b}	0.950 ± 0.03^{b}
	Pupae	0.903 ± 0.052^{ab}	0.855 ± 0.017^{a}	0.914 ± 0.55^{ab}	0.966 ± 0.019^{b}	0.940 ± 0.028^{b}
	Adult	0.848 ± 0.017^{a}	0.843 ± 0.017^{a}	0.898 ± 0.051^{ac}	0.962 ± 0.022^{b}	0.940 ± 0.028^{bc}
dx	Egg	0.013 ± 0.015^{a}	0.103 ± 0.022^{b}	0.032 ± 0.033^{a}	0.016 ± 0.009^{a}	0.012 ± 0.015^{a}
	L1+L2	0.028 ± 0.021^{a}	0.015 ± 0.013^{a}	0.03 ± 0.028^{a}	0.01 ± 0.01^{a}	0.025 ± 0.019^{a}
	L3	0.03 ± 0.03^{a}	0.018 ± 0.022^{a}	0.014 ± 0.013^{a}	0.00 ± 0.00^{a}	0.013 ± 0.012^{a}
	L4	0.033 ± 0.025^{a}	0.01 ± 0.008^{a}	0.01 ± 0.017^{a}	0.008 ± 0.008^{a}	0.01 ± 0.009^{a}
	Pupae	0.055 ± 0.065^{a}	0.013 ± 0.013^{ab}	0.016 ± 0.011^{ab}	0.004 ± 0.006^{ab}	0.00 ± 0.00^{b}
	Adult	0.848 ± 0.017^{a}	0.843 ± 0.017^{a}	0.898 ± 0.051^{ac}	0.962 ± 0.022^{b}	0.940 ± 0.028^{bc}
qx	Egg	0.013 ± 0.015^{a}	0.103 ± 0.022^{b}	0.032 ± 0.033^{a}	0.016 ± 0.009^{a}	0.012 ± 0.015^{a}
	L1+L2	0.028 ± 0.021^{a}	0.015 ± 0.013^{a}	0.03 ± 0.028^{a}	0.01 ± 0.01^{a}	0.025 ± 0.02^{a}
	L3	0.025 ± 0.025^{a}	0.018 ± 0.022^{a}	0.014 ± 0.013^{a}	0.00 ± 0.00^{a}	0.013 ± 0.012^{a}
	L4	0.033 ± 0.025^{a}	0.01 ± 0.008^{a}	0.012 ± 0.022^{a}	0.008 ± 0.008^{a}	0.01 ± 0.009^{a}
	Pupae	0.058 ± 0.064^{a}	0.013 ± 0.013^{ab}	0.016 ± 0.011^{ab}	0.004 ± 0.006^{ab}	0.00 ± 0.00^{b}
	Adult	1.00 ± 0.00^{a}	1.00 ± 0.00^{a}	1.00 ± 0.00^{a}	1.00 ± 0.00^{a}	1.00 ± 0.00^{a}
kx	Egg	0.005 ± 0.006^{a}	0.05 ± 0.009^{b}	0.014 ± 0.017^{a}	0.008 ± 0.005^{a}	0.003 ± 0.005^{a}
	L1+L2	0.01 ± 0.008^{a}	0.008 ± 0.009^{a}	0.014 ± 0.015^{a}	0.004 ± 0.006^{a}	0.010 ± 0.011^{a}
	L3	0.013 ± 0.013^{a}	0.008 ± 0.009^{a}	0.006 ± 0.006^{a}	0.00 ± 0.00^{a}	0.005 ± 0.005^{a}
	L4	0.015 ± 0.01^{a}	0.008 ± 0.005^{a}	0.004 ± 0.009^{a}	0.002 ± 0.005^{a}	0.003 ± 0.005^{a}
	Pupae	0.03 ± 0.031^{a}	0.01 ± 0.008^{a}	0.006 ± 0.006^{a}	0.00 ± 0.00^{a}	0.00 ± 0.00^{a}
	Adult	-	-	-	-	-
Lx	Egg	0.995 ± 0.006^{a}	0.953 ± 0.009^{b}	0.986 ± 0.017^{a}	0.992 ± 0.005^{a}	0.997 ± 0.005^{a}
	L1+L2	0.978 ± 0.022^{a}	0.893 ± 0.028^{b}	0.954 ± 0.032^{a}	0.980 ± 0.012^{a}	0.978 ± 0.015^{a}
	L3	0.95 ± 0.041^{a}	0.878 ± 0.029^{b}	0.932 ± 0.040^{ab}	0.974 ± 0.017^{a}	0.96 ± 0.024^{a}
	L4	0.92 ± 0.05^{ab}	0.863 ± 0.017^{a}	0.92 ± 0.05^{ab}	0.972 ± 0.016^{b}	0.95 ± 0.027^{b}
	Pupae	0.88 ± 0.024^{ac}	0.853 ± 0.015^{a}	0.908 ± 0.052^{ab}	0.966 ± 0.019^{b}	0.94 ± 0.028^{bc}
	Adult	0.428 ± 0.009^{a}	0.423 ± 0.009^{a}	0.452 ± 0.028^{ab}	0.484 ± 0.009^{b}	0.472 ± 0.016^{b}
Tx	Egg	5.133 ± 0.137^{ab}	4.843 ± 0.104^{a}	5.142 ± 0.213^{b}	5.36 ± 0.081^{b}	5.282 ± 0.106^{b}
	L1+L2	4.14 ± 0.129^{ab}	3.898 ± 0.092^{a}	4.160 ± 0.199^{ab}	4.368 ± 0.077^{b}	4.290 ± 0.103^{b}
	L3	3.17 ± 0.107^{ab}	3.01 ± 0.07^{a}	3.21 ± 0.166^{ab}	3.390 ± 0.064^{b}	3.313 ± 0.094^{b}
	L4	2.22 ± 0.066^{ac}	2.133 ± 0.043^{a}	2.28 ± 0.128^{ab}	2.42 ± 0.048^{b}	2.36 ± 0.068^{bc}
	Pupae	1.30 ± 0.018^{a}	1.273 ± 0.022^{a}	1.36 ± 0.079^{ab}	1.446 ± 0.031^{b}	1.412 ± 0.044^{b}
	Adult	0.428 ± 0.009^{a}	0.423 ± 0.009^{a}	0.452 ± 0.028^{ab}	0.484 ± 0.009^{b}	0.472 ± 0.016^{b}
ex	Egg	5.133 ± 0.137^{ab}	4.843 ± 0.104^{a}	5.142 ± 0.213^{b}	5.360 ± 0.081^{b}	5.282 ± 0.106^{b}
	L1+L2	4.190 ± 0.082^{a}	4.343 ± 0.022^{ab}	4.296 ± 0.114^{ab}	4.440 ± 0.039^{b}	4.338 ± 0.105^{ab}
	L3	3.298 ± 0.043^{a}	3.41 ± 0.065^{ab}	3.418 ± 0.068^{b}	3.48 ± 0.019^{b}	3.44 ± 0.043^{b}
	L4	2.372 ± 0.057^{a}	2.463 ± 0.031^{b}	2.462 ± 0.031^{b}	2.480 ± 0.019^{b}	2.480 ± 0.018^{b}
	Pupae	1.44 ± 0.064^{a}	1.488 ± 0.013^{ab}	1.484 ± 0.011^{ab}	1.496 ± 0.005^{ab}	1.50 ± 0.00^{b}
	Adult	0.50 ± 0.00^{a}	0.50 ± 0.00^{a}	0.50 ± 0.00^{a}	0.50 ± 0.00^{a}	0.50 ± 0.00^{a}

Table S3. Sex frequency and ratio in *Ae. aegypti* populations reared at 28±1°C temperature, 80±5% relative humidity, and 12 h light: 12 h dark photoperiod. One way analysis of variance (ANOVA) was conducted followed by a Bonferroni post- hoc test to account for multiple comparisons between populations of *Ae. aegypti*. Additionally, a Student's t-test was used to compare female and male percentages within the same population. * $p < 0.05$; ns, no significant difference ($p > 0.05$); SD, standard deviation.

	Bello		Neiva		Itagüí		Riohacha		Rockefeller	
	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male
Frequency (*Ni*)	136	203	158	179	226	223	221	260	282	282
Percentage Mean ± SD	40.13 ± 3.61*	59.88 ± 3.61*	46.80 ± 6.66^{ns}	53.2 ± 6.66^{ns}	50.24 ± 3.48^{ns}	49.76 ± 3.48^{ns}	45.88 ± 4.75*	54.12 ± 4.75*	49.98 ± 9.94^{ns}	50.02 ± 9.94^{ns}
Sex ratio (female / male) Mean ± SD	0.67 ± 0.10 ^{ns}		0.90 ± 0.23 ^{ns}		1.02 ± 0.14 ^{ns}		0.86 ± 0.17 ^{ns}		1.07 ± 0.43 ^{ns}	

Table S4. Male life tables of *Ae. aegypti* populations. Mosquitoes were reared at 28±1°C temperature, 80±5% relative humidity, and 12 h light: 12 h dark photoperiod. Mean ± standard deviation (SD) of four to six replicates are shown. Proportion of age-specific survivorship: *lx*. Proportion of individuals who die during the age interval (*x*) to (*x + 1*): *dx*. Age-specific mortality rate: *qx*. Killing power: *kx*. Average of the probability of survival between two successive ages: *Lx*. Total number of days remaining to live for survivors of the cohort, when it reaches age *x*, until the last member dies at age *m*: *Tx*. Life expectancy, i.e., the mean number of days remaining to the survivors at age *x*: *ex*.

Table S5. Female life tables of *Ae. aegypti* populations. Mosquitoes were reared at 28±1°C temperature, 80±5% relative humidity, and 12 h light: 12 h dark photoperiod. Mean ± standard deviation (SD) of four to six replicates are shown. Proportion of age-specific survivorship: *lx*. Proportion of individuals who die during the age interval (*x*) to (*x + 1*): *dx*. Age-specific mortality rate: *qx*. Killing power: *kx*. Average of the probability of survival between two successive ages: *Lx*. Total number of days remaining to live for survivors of the cohort, when it reaches age *x*, until the last member dies at age *m*: *Tx*. Life expectancy, i.e., the mean number of days remaining to the survivors at age *x*: *ex*.

Table S6. Adult longevity for both sexes in *Ae. aegypti* populations reared at 28±1°C temperature, 80±5% relative humidity, and 12 h light: 12 h dark photoperiod. One way analysis of variance (ANOVA) was conducted followed by a Bonferroni post- hoc test to account for multiple comparisons between populations of *Ae. aegypti*. Mean days ± standard error (SE) are shown. Means in the same row by sex, followed by the same letters are not significantly different ($p > 0.05$). Additionally, a Student's t-test was used to compare female and male means within the same population. * $p < 0.05$.

Females					Males				
Bello	**Neiva**	**Itagüí**	**Riohacha**	**Rockefeller**	**Bello**	**Neiva**	**Itagüí**	**Riohacha**	**Rockefeller**
39.90 ± 1.44^{*a}	**54.19 ± 1.76^{*b}**	**79.62 ± 1.79^{*c}**	**92.40 ± 1.06^{*d}**	**88.86 ± 1.86^{*d}**	**21.33 ± 0.76^{a}**	**27.64 ± 1.09^{b}**	**44.81 ± 1.64^{c}**	**75.97 ± 1.44^{d}**	**32.79 ± 1.17^{b}**

Table S7. Pairwise strata comparisons between populations by sex was performed using the Log-rank (Mantel-Cox) test. Males and females of each *Ae. aegypti* population and the control Rockefeller were reared at 28 ± 1°C temperature, 80 ± 5% relative humidity, and 12 h light: 12 h dark photoperiod. Chi square (X^2). The statistically significant differences (Sig.) were established ($p < 0.05$).

Sex	Population or control	Bello		Neiva		Itagüí		Riohacha		Rockefeller	
		X^2	Sig.	X^2	Sig.	X^2	Sig.	X^2	Sig.	X^2	Sig.
Males	Bello	-	-	20.59	<0.001	164.60	<0.001	476.87	<0.001	67.99	<0.001
	Neiva	20.59	<0.001	-	-	68.90	<0.001	389.12	<0.001	12.05	0.001
	Itagüí	164.60	<0.001	68.90	<0.001	-	-	151.71	<0.001	28.95	<0.001
	Riohacha	476.87	<0.001	389.12	<0.001	151.71	<0.001	-	-	314.60	<0.001
	Rockefeller	67.99	<0.001	12.05	0.001	28.95	<0.001	314.60	<0.001	-	-
Females	Bello	-	-	40.21	<0.001	261.52	<0.001	435.70	<0.001	336.52	<0.001
	Neiva	40.21	<0.001	-	-	90.77	<0.001	186.83	<0.001	170.00	<0.001
	Itagüí	261.52	<0.001	90.77	<0.001	-	-	9.10	0.003	23.50	<0.001
	Riohacha	435.70	<0.001	186.83	<0.001	9.10	0.003	-	-	17.83	<0.001
	Rockefeller	336.52	<0.001	170.00	<0.001	23.50	<0.001	17.83	<0.001	-	-

Table S8. Life cycle (days) from egg to adult (male and female) of Colombian *Ae. aegypti* from two regions, reared at 21±1°C, 28±1°C and 35±1°C temperatures (Temp), 80±5% relative humidity, and 12 h light: 12 h dark photoperiod. Minimum (Min); Maximum (Max); Standard deviation (SD). Pupation time is the mean development time from L4 to pupae. Time of emergence is the mean development time from pupae to adults (male or female). ANOVA was conducted followed by a Bonferroni post- hoc test to account for multiple comparisons between temperatures at the same age within the same population. Means by age within the same population followed by the same letters are not significantly different ($p > 0.05$).

		Bello			Neiva			Rockefeller		
Development parameters	**Temp °C**	**Min**	**Max**	**Mean±SD**	**Min**	**Max**	**Mean±SD**	**Min**	**Max**	**Mean±SD**
Egg to L1 (Eclosion)	**21**	**1.0**	**12.0**	**2.10 ± 1.57^{a}**	**1.0**	**42.0**	**2.93 ± 6.90^{a}**	**1.0**	**39.0**	**3.37 ± 4.10^{a}**
	28	**1.0**	**10.0**	**1.22 ± 0.61^{b}**	**1.0**	**10.0**	**1.39 ± 1.49^{b}**	**1.0**	**21.0**	**2.19 ± 2.33^{b}**
	35	**1.0**	**30.0**	**7.67 ± 3.30^{c}**	**1.0**	**23.0**	**6.25 ± 5.18^{c}**	**1.0**	**31.0**	**6.02 ± 4.18^{c}**
L1+L2 to L3	**21**	**2.0**	**24.0**	**3.42 ± 2.07^{a}**	**2.0**	**45.0**	**4.39 ± 7.60^{a}**	**2.0**	**44.0**	**5.02 ± 5.10^{a}**
	28	**2.0**	**11.0**	**2.09 ± 0.63^{b}**	**2.0**	**10.0**	**3.13 ± 1.43^{b}**	**2.0**	**25.0**	**4.27 ± 2.70^{b}**
	35	**2.0**	**27.0**	**7.94 ± 3.27^{c}**	**1.0**	**20.0**	**6.29 ± 4.52^{c}**	**2.0**	**22.0**	**7.19 ± 3.93^{c}**
L3 to L4	**21**	**2.0**	**26.0**	**4.54 ± 2.19^{a}**	**2.0**	**45.0**	**5.33 ± 7.54^{a}**	**2.0**	**45.0**	**6.07 ± 4.70^{a}**
	28	**1.0**	**13.0**	**1.14 ± 0.87^{b}**	**1.0**	**10.0**	**2.64 ± 1.57^{b}**	**1.0**	**26.0**	**3.04 ± 2.41^{b}**
	35	**1.0**	**26.0**	**6.68 ± 3.37^{c}**	**1.0**	**18.0**	**5.27 ± 4.36^{a}**	**1.0**	**20.0**	**5.67 ± 3.82^{a}**
L1+L2 to L4 (Total larval development time)	**21**	**4.0**	**35.0**	**7.68 ± 3.05^{a}**	**4.0**	**90.0**	**9.07 ± 12.91^{a}**	**4.0**	**89.0**	**10.82 ± 8.70^{a}**
	28	**3.0**	**16.0**	**3.17 ± 1.03^{b}**	**3.0**	**20.0**	**5.70 ± 2.87^{b}**	**3.0**	**42.0**	**7.18 ± 4.64^{b}**
	35	**3.0**	**53.0**	**14.48 ± 6.34^{c}**	**2.0**	**38.0**	**11.48 ± 8.91^{a}**	**3.0**	**42.0**	**12.75 ± 7.64^{c}**
L4 to Pupae (Pupation time)	**21**	**3.0**	**31.0**	**7.29 ± 2.46^{a}**	**4.0**	**46.0**	**7.22 ± 7.31^{a}**	**3.0**	**44.0**	**7.07 ± 4.57^{a}**
	28	**2.0**	**11.0**	**3.11 ± 0.73^{b}**	**2.0**	**10.0**	**6.49 ± 1.49^{ab}**	**0.0**	**19.0**	**3.90 ± 2.03^{b}**
	35	**0.0**	**26.0**	**6.62 ± 3.56^{c}**	**0.0**	**18.0**	**4.89 ± 4.49^{b}**	**0.0**	**20.0**	**6.02 ± 3.98^{c}**

Pupae to Male (Male emergence time)	**21**	**3.0**	**15.0**	**6.21 ± 1.93[a]**	**2.0**	**45.0**	**6.65 ± 7.16[a]**	**3.0**	**43.0**	**6.37 ± 4.78[a]**
	28	**2.0**	**5.0**	**3.23 ± 0.53[b]**	**1.0**	**11.0**	**5.46 ± 1.86[a]**	**2.0**	**10.0**	**4.16 ± 1.93[b]**
	35	**1.0**	**26.0**	**7.07 ± 3.46[c]**	**1.0**	**16.0**	**4.31 ± 3.21[a]**	**0.0**	**20.0**	**6.70 ± 4.07[a]**
Pupae to Female (Female emergence time)	**21**	**4.0**	**14.0**	**6.85 ± 1.72[a]**	**4.0**	**44.0**	**7.39 ± 7.21[a]**	**4.0**	**43.0**	**7.29 ± 4.38[a]**
	28	**3.0**	**12.0**	**3.81 ± 0.98[b]**	**2.0**	**11.0**	**6.41 ± 1.63[a]**	**2.0**	**21.0**	**5.09 ± 2.32[b]**
	35	**2.0**	**27.0**	**7.38 ± 3.59[a]**	**2.0**	**19.0**	**7.20 ± 5.20[a]**	**1.0**	**16.0**	**6.55 ± 3.98[a]**
Average age Egg to Male	**21**	**11**	**108.0**	**23.56 ± 10.22**	**11.0**	**223.0**	**26.52 ± 36.51**	**11.0**	**215.0**	**27.9 ± 23.25**
	28	**8.0**	**50.0**	**10.79 ± 3.37**	**7.0**	**51.0**	**19.11 ± 7.84**	**6.0**	**101.0**	**17.56 ± 11.4**
	35	**5.0**	**135.0**	**35.98 ± 16.96**	**4.0**	**95.0**	**27.01 ± 21.76**	**4.0**	**113.0**	**31.6 ± 19.98**
Average age Egg to Female	**21**	**12.0**	**107.0**	**24.2 ± 10.01**	**13.0**	**222.0**	**27.26 ± 36.56**	**12.0**	**215.0**	**28.82 ± 22.85**
	28	**9.0**	**57.0**	**11.37 ± 3.82**	**8.0**	**51.0**	**20.06 ± 7.61**	**6.0**	**112.0**	**18.49 ± 11.79**
	35	**6.0**	**136.0**	**36.29 ± 17.09**	**5.0**	**98.0**	**29.9 ± 23.75**	**5.0**	**109.0**	**31.45 ± 19.89**

Table S9. Egg hatch rate; pupation rate and emergence rate of two Colombian *Ae. aegypti* populations reared at 21±1°C, 28±1°C and 35±1°C temperatures, 80±5% relative humidity, and 12 h light: 12 h dark photoperiod. Minimum (Min); Maximum (Max); Standard deviation (SD) of four to six replicates are shown. ANOVA was conducted followed by a Bonferroni post- hoc test to account for multiple comparisons between temperatures at the same rate within the same population. Means by rate within the same population followed by the same letters are not significantly different ($p > 0.05$).

		Bello			Neiva			Rockefeller		
Rates	**Temp °C**	**Min**	**Max**	**Mean±SD**	**Min**	**Max**	**Mean±SD**	**Min**	**Max**	**Mean±SD**
Egg hatch rate	**21**	**88.0**	**94.0**	**91.2 ± 2.39[a]**	**75.0**	**91.0**	**83.4 ± 7.57[a]**	**87.0**	**99.0**	**92.6 ± 5.03[a]**
	28	**97.0**	**100.0**	**98.8 ± 1.5[a]**	**87.0**	**92.0**	**89.75 ± 2.22[a]**	**97.0**	**100.0**	**98.8 ± 1.5[a]**
	35	**57.0**	**81.0**	**68.8 ± 9.2[b]**	**11.0**	**27.0**	**17.4 ± 6.54[b]**	**57.0**	**81.0**	**66.0 ± 11.96[b]**
Pupation rate	**21**	**74.0**	**87.0**	**79.8 ± 4.9[a]**	**66.0**	**85.0**	**75.2 ± 7.5[a]**	**84.0**	**90.0**	**86.4 ± 2.3[a]**
	28	**87.0**	**98.0**	**90.3 ± 5.2[a]**	**83.0**	**87.0**	**85.5 ± 1.7[a]**	**90.0**	**97.0**	**94.0 ± 2.8[a]**
	35	**53.0**	**71.0**	**60.0 ± 6.93[b]**	**9.0**	**20.0**	**13.0 ± 5.15[b]**	**44.0**	**67.0**	**52.6 ± 9.2[b]**
Emergence rate	**21**	**68.0**	**81.0**	**76.2 ± 4.97[a]**	**66.0**	**85.0**	**73.6 ± 8.1[a]**	**83.0**	**90.0**	**85.6 ± 2.7[a]**
	28	**83.0**	**87.0**	**84.75 ± 1.71[a]**	**82.0**	**86.0**	**84.3 ± 1.71[a]**	**90.0**	**97.0**	**94.0 ± 2.8[a]**
	35	**46.0**	**68.0**	**53.4 ± 8.5[b]**	**8.0**	**19.0**	**12.4 ± 4.83[b]**	**42.0**	**65.0**	**51.0 ± 9.1[b]**

Table S10. Age specific life table of 100 cohort eggs in each *Ae. aegypti* population. Mosquitoes were reared at 21±1°C temperature, 80±5% relative humidity, and 12 h light: 12 h dark photoperiod. Mean ± standard deviation (SD) of five replicates are shown. Proportion of age-specific survivorship: l_x. Proportion of individuals who die during the age interval (x) to ($x + 1$): d_x. Age-specific mortality rate: q_x. Killing power: k_x. Average of the probability of survival between two successive ages: L_x. Total number of days remaining to live for survivors of the cohort, when it reaches age x, until the last member dies at age m: T_x. Life expectancy, i.e., the mean number of days remaining to the survivors at age x: e_x.

Parameters	Developmental stage (*x*)	Bello	Neiva	Rockefeller
lx	Egg	1.00 ± 0.00	1.00 ± 0.00	1.00 ± 0.00
	L1+L2	0.912 ± 0.024	0.834 ± 0.076	0.926 ± 0.05
	L3	0.85 ± 0.049	0.784 ± 0.076	0.898 ± 0.039
	L4	0.82 ± 0.052	0.764 ± 0.076	0.882 ± 0.026
	Pupae	0.798 ± 0.05	0.752 ± 0.075	0.864 ± 0.023
	Adult	0.76 ± 0.05	0.736 ± 0.081	0.856 ± 0.027
dx	Egg	0.088 ± 0.024	0.166 ± 0.076	0.074 ± 0.050
	L1+L2	0.064 ± 0.034	0.050 ± 0.026	0.028 ± 0.016
	L3	0.03 ± 0.005	0.020 ± 0.019	0.016 ± 0.015
	L4	0.022 ± 0.005	0.012 ± 0.011	0.018 ± 0.008
	Pupae	0.036 ± 0.043	0.016 ± 0.025	0.008 ± 0.013
	Adult	0.76 ± 0.05	0.736 ± 0.081	0.856 ± 0.027
qx	Egg	0.088 ± 0.024	0.166 ± 0.076	0.074 ± 0.05
	L1+L2	0.070 ± 0.038	0.060 ± 0.029	0.028 ± 0.016
	L3	0.034 ± 0.009	0.026 ± 0.026	0.016 ± 0.015
	L4	0.026 ± 0.005	0.014 ± 0.015	0.018 ± 0.008
	Pupae	0.042 ± 0.05	0.020 ± 0.034	0.008 ± 0.013
	Adult	1.00 ± 0.00	1.00 ± 0.00	1.00 ± 0.00
kx	Egg	0.042 ± 0.013	0.080 ± 0.038	0.034 ± 0.026
	L1+L2	0.032 ± 0.019	0.028 ± 0.015	0.014 ± 0.009
	L3	0.018 ± 0.005	0.012 ± 0.013	0.006 ± 0.005
	L4	0.010 ± 0.00	0.010 ± 0.007	0.008 ± 0.004
	Pupae	0.022 ± 0.022	0.012 ± 0.016	0.006 ± 0.009
	Adult	-	-	-
Lx	Egg	0.958 ± 0.013	0.920 ± 0.038	0.966 ± 0.026
	L1+L2	0.88 ± 0.033	0.812 ± 0.075	0.914 ± 0.043
	L3	0.84 ± 0.049	0.776 ± 0.077	0.892 ± 0.034
	L4	0.81 ± 0.052	0.762 ± 0.076	0.876 ± 0.023
	Pupae	0.78 ± 0.044	0.746 ± 0.077	0.862 ± 0.023
	Adult	0.38 ± 0.027	0.370 ± 0.043	0.430 ± 0.012
Tx	Egg	4.640 ± 0.202	4.370 ± 0.371	4.926 ± 0.159
	L1+L2	3.69 ± 0.194	3.456 ± 0.336	3.966 ± 0.137
	L3	2.81 ± 0.159	2.65 ± 0.264	3.056 ± 0.093
	L4	1.97 ± 0.113	1.874 ± 0.188	2.164 ± 0.059
	Pupae	1.16 ± 0.069	1.114 ± 0.118	1.290 ± 0.037
	Adult	0.38 ± 0.027	0.370 ± 0.043	0.430 ± 0.012
ex	Egg	4.640 ± 0.202	4.370 ± 0.371	4.926 ± 0.159
	L1+L2	4.04 ± 0.149	4.140 ± 0.129	4.284 ± 0.106
	L3	3.31 ± 0.044	3.374 ± 0.105	3.40 ± 0.053
	L4	2.40 ± 0.057	2.45 ± 0.061	2.448 ± 0.013
	Pupae	1.46 ± 0.05	1.480 ± 0.034	1.492 ± 0.013
	Adult	0.50 ± 0.00	0.50 ± 0.00	0.50 ± 0.00

Table S11. Age specific life table of 100 cohort eggs in each *Ae. aegypti* population. Mosquitoes were reared at 35±1°C temperature, 80±5% relative humidity, and 12 h light: 12 h dark photoperiod. Mean ± standard deviation (SD) of five replicates are shown. Proportion of age-specific survivorship: l_x. Proportion of individuals who die during the age interval (x) to ($x + 1$): d_x. Age-specific mortality rate: q_x. Killing power: k_x. Average of the probability of survival between two successive ages: L_x. Total number of days remaining to live for survivors of the cohort, when it reaches age x, until the last member dies at age m: T_x. Life expectancy, i.e., the mean number of days remaining to the survivors at age x: e_x.

Parameters	Developmental stage (x)	Bello	Neiva	Rockefeller
l_x	Egg	1.00 ± 0.00	1.00 ± 0.00	1.00 ± 0.00
	L1+L2	0.688 ± 0.092	0.174 ± 0.065	0.660 ± 0.120
	L3	0.622 ± 0.074	0.140 ± 0.052	0.540 ± 0.088
	L4	0.608 ± 0.074	0.134 ± 0.054	0.528 ± 0.090
	Pupae	0.60 ± 0.069	0.130 ± 0.052	0.526 ± 0.092
	Adult	0.534 ± 0.085	0.124 ± 0.048	0.510 ± 0.091
d_x	Egg	0.31 ± 0.092	0.826 ± 0.065	0.340 ± 0.120
	L1+L2	0.066 ± 0.023	0.034 ± 0.018	0.120 ± 0.076
	L3	0.014 ± 0.015	0.006 ± 0.005	0.012 ± 0.016
	L4	0.008 ± 0.008	0.004 ± 0.005	0.002 ± 0.005
	Pupae	0.066 ± 0.030	0.006 ± 0.005	0.016 ± 0.015
	Adult	0.534 ± 0.085	0.124 ± 0.048	0.510 ± 0.091
q_x	Egg	0.31 ± 0.092	0.826 ± 0.065	0.340 ± 0.120
	L1+L2	0.094 ± 0.027	0.190 ± 0.073	0.174 ± 0.098
	L3	0.022 ± 0.023	0.052 ± 0.050	0.022 ± 0.034
	L4	0.012 ± 0.013	0.028 ± 0.041	0.004 ± 0.009
	Pupae	0.112 ± 0.052	0.044 ± 0.046	0.032 ± 0.033
	Adult	1.00 ± 0.00	1.00 ± 0.00	1.00 ± 0.00
k_x	Egg	0.16 ± 0.057	0.784 ± 0.158	0.184 ± 0.077
	L1+L2	0.044 ± 0.015	0.092 ± 0.036	0.086 ± 0.051
	L3	0.012 ± 0.011	0.024 ± 0.025	0.012 ± 0.016
	L4	0.006 ± 0.005	0.012 ± 0.018	0.002 ± 0.005
	Pupae	0.052 ± 0.023	0.020 ± 0.021	0.012 ± 0.013
	Adult	-	-	-
L_x	Egg	0.85 ± 0.046	0.592 ± 0.033	0.834 ± 0.061
	L1+L2	0.66 ± 0.081	0.160 ± 0.057	0.604 ± 0.099
	L3	0.62 ± 0.075	0.140 ± 0.052	0.536 ± 0.091
	L4	0.606 ± 0.073	0.134 ± 0.054	0.528 ± 0.090

	Pupae	**0.572 ± 0.076**	**0.130 ± 0.052**	**0.520 ± 0.090**
	Adult	**0.268 ± 0.042**	**0.064 ± 0.025**	**0.258 ± 0.048**
Tx	**Egg**	**3.55 ± 0.39**	**1.202 ± 0.269**	**3.264 ± 0.460**
	L1+L2	**2.71 ± 0.34**	**0.620 ± 0.237**	**2.438 ± 0.410**
	L3	**2.06 ± 0.262**	**0.460 ± 0.180**	**1.834 ± 0.316**
	L4	**1.44 ± 0.186**	**0.326 ± 0.126**	**1.302 ± 0.229**
	Pupae	**0.84 ± 0.118**	**0.192 ± 0.073**	**0.776 ± 0.138**
	Adult	**0.268 ± 0.042**	**0.064 ± 0.025**	**0.258 ± 0.048**
ex	**Egg**	**3.55 ± 0.39**	**1.202 ± 0.269**	**3.264 ± 0.460**
	L1+L2	**3.94 ± 0.13**	**3.532 ± 0.217**	**3.710 ± 0.359**
	L3	**3.298 ± 0.091**	**3.252 ± 0.104**	**3.394 ± 0.134**
	L4	**2.37 ± 0.059**	**2.402 ± 0.070**	**2.460 ± 0.046**
	Pupae	**1.39 ± 0.052**	**1.456 ± 0.046**	**1.468 ± 0.033**
	Adult	**0.50 ± 0.00**	**0.50 ± 0.00**	**0.50 ± 0.00**

Table S12. Age-specific mortality rate (*qx*) and life expectancy (*ex*) of 100 eggs for each *Ae. aegypti* population. Mosquitoes were reared at 21±1°C, 28±1°C and 35±1°C temperatures, 80±5% relative humidity, and 12 h light: 12 h dark photoperiod. Mean ± standard deviation (SD) of four to six replicates are shown. ANOVA was conducted followed by a Bonferroni post- hoc test to account for multiple comparisons between temperatures for the same parameter within the same population and developmental stage. Means followed by the same letters are not significantly different ($p > 0.05$).

			Bello	**Neiva**	**Rockefeller**
Parameters	**Developmental stage (*x*)**	**Temp °C**	**Mean±SD**	**Mean±SD**	**Mean±SD**
qx	**Egg**	**21**	**0.088 ± 0.024^{a}**	**0.166 ± 0.076^{a}**	**0.074 ± 0.05^{a}**
		28	**0.013 ± 0.015^{a}**	**0.103 ± 0.022^{a}**	**0.012 ± 0.015^{a}**
		35	**0.31 ± 0.092^{b}**	**0.826 ± 0.065^{b}**	**0.340 ± 0.120^{b}**
	L1+L2	**21**	**0.070 ± 0.038^{ab}**	**0.060 ± 0.029^{a}**	**0.028 ± 0.016^{a}**
		28	**0.028 ± 0.021^{a}**	**0.015 ± 0.013^{a}**	**0.025 ± 0.02^{a}**
		35	**0.094 ± 0.027^{b}**	**0.190 ± 0.073^{b}**	**0.174 ± 0.098^{b}**
	L3	**21**	**0.034 ± 0.009^{a}**	**0.026 ± 0.026^{a}**	**0.016 ± 0.015^{a}**
		28	**0.025 ± 0.025^{a}**	**0.018 ± 0.022^{a}**	**0.013 ± 0.012^{a}**
		35	**0.022 ± 0.023^{a}**	**0.052 ± 0.05^{a}**	**0.022 ± 0.034^{a}**
	L4	**21**	**0.026 ± 0.005^{a}**	**0.014 ± 0.015^{a}**	**0.018 ± 0.008^{a}**

		28	0.033 ± 0.025[a]	0.01 ± 0.008[a]	0.01 ± 0.009[a]
		35	0.012 ± 0.013[a]	0.028 ± 0.041[a]	0.004 ± 0.009[a]
	Pupae	21	0.042 ± 0.05[a]	0.020 ± 0.034[a]	0.008 ± 0.013[a]
		28	0.058 ± 0.064[a]	0.013 ± 0.013[a]	0.00 ± 0.00[a]
		35	0.112 ± 0.052[a]	0.044 ± 0.046[a]	0.032 ± 0.033[a]
ex	Egg	21	4.640 ± 0.202[a]	4.370 ± 0.371[a]	4.93 ± 0.159[a]
		28	5.133 ± 0.137[a]	4.843 ± 0.104[a]	5.282 ± 0.106[a]
		35	3.552 ± 0.386[b]	1.202 ± 0.269[b]	3.264 ± 0.460[b]
	L1+L2	21	4.040 ± 0.149[ab]	4.140 ± 0.129[a]	4.284 ± 0.106[a]
		28	4.190 ± 0.082[a]	4.343 ± 0.022[a]	4.34 ± 0.105[a]
		35	3.942 ± 0.130[b]	3.532 ± 0.217[b]	3.710 ± 0.359[b]
	L3	21	3.308 ± 0.044[a]	3.374 ± 0.105[a]	3.40 ± 0.053[a]
		28	3.30 ± 0.043[a]	3.405 ± 0.065[a]	3.44 ± 0.043[a]
		35	3.30 ± 0.091[a]	3.252 ± 0.104[a]	3.394 ± 0.134[a]
	L4	21	2.404 ± 0.057[a]	2.45 ± 0.061[a]	2.45 ± 0.013[a]
		28	2.37 ± 0.057[a]	2.46 ± 0.031[a]	2.48 ± 0.018[a]
		35	2.37 ± 0.059[a]	2.402 ± 0.070[a]	2.46 ± 0.046[a]
	Pupae	21	1.46 ± 0.05[a]	1.480 ± 0.034[a]	1.492 ± 0.013[a]
		28	1.44 ± 0.064[a]	1.49 ± 0.013[a]	1.50 ± 0.00[a]
		35	1.39 ± 0.052[a]	1.46 ± 0.046[a]	1.47 ± 0.033[a]