

## Correction

### ENVIRONMENTAL SCIENCES

Correction for “Global risk model for vector-borne transmission of Zika virus reveals the role of El Niño 2015,” by Cyril Caminade, Joanne Turner, Soeren Metelmann, Jenny C. Hesson, Marcus S. C. Blagrove, Tom Solomon, Andrew P. Morse, and Matthew Baylis, which appeared in issue 1, January 3, 2017, of *Proc Natl Acad Sci USA* (114:119–124; first published December 19, 2016; 10.1073/pnas.1614303114).

The authors note that Table 1 appeared incorrectly. The corrected table appears below.

**Table 1.  $R_0$  model parameter settings—an index of 1 denotes *Ae. aegypti* and an index of 2 denotes *Ae. albopictus***

Symbol	Description	Constant/formula	Comments	Refs.
* $a_1$ * $a_2$	Biting rates (per day)	$a_1 = 0.0043T + 0.0943$ $a_2 = 0.5 \times a_1$	The linear dependency to temperature was based on estimates for <i>Ae. aegypti</i> in Thailand; biting rates for <i>Ae. albopictus</i> were halved based on observed feeding interval data (18)	58, 59
$\phi_1$ $\phi_2$	Vector preferences (0–1)	$\phi_1 = 1[0.88–1]$ $\phi_2 = 0.5[0.24–1]$	Most studies show that <i>Ae. aegypti</i> mainly feeds on humans; <i>Ae. albopictus</i> can feed on other wild hosts (cats, dogs, swine. . .), and large differences are shown for feeding preference between urban and rural settings for this species	17, 54, 60–65
$b_1$ $b_2$	Transmission probability—vector to host (0–1)	$b_1 = 0.5[0.1–0.75]$ $b_2 = 0.5[0.1–0.75]$	Based on dengue parameters—estimates from a mathematical review study	66
$\beta_1$ $\beta_2$	Transmission probability—host to vector (0–1)	$\beta_1 = 0.1$ $\beta_2 = 0.033$	Recent laboratory experiment studies generally show low transmission efficiency (in saliva) for various vector/ZIKV strain combinations (South America and Africa); estimates from ref. 15 were used in the final model version	14–16
* $\mu_1$ * $\mu_2$	Mortality rates (0–1 per day)	$\mu_1 = 1/(1.22 + \exp(-3.05 + 0.72T)) + 0.196$ if $T < 22^\circ\text{C}$ $\mu_1 = 1/(1.14 + \exp(51.4 - 1.37T)) + 0.192$ if $T \geq 22^\circ\text{C}$ $\mu_2 = 1/(1.1 + \exp(-4.04 + 0.576T)) + 0.12$ if $T < 15^\circ\text{C}$ $\mu_2 = 0.000339T^2 - 0.0189T + 0.336$ if $15^\circ\text{C} \leq T < 26.3^\circ\text{C}$ $\mu_2 = 1/(1.065 + \exp(32.2 - 0.92T)) + 0.0747$ if $T \geq 26.3^\circ\text{C}$	Mortality rates were derived for both mosquito vectors from published estimates based on both laboratory and field data, and they were capped to range between 0 and 1	67
* $eip_1$ * $eip_2$	EIP (days)	$eip_1 = 1/\nu_1 = 4 + \exp(5.15 - 0.123T)$ $eip_2 = 1/\nu_2 = 1.03(4 + \exp(5.15 - 0.123T))$	EIPs for dengue were used because estimates for ZIKV were only available at a single temperature; 50% (100%) of <i>Ae. aegypti</i> mosquitoes were infected by ZIKV after 5 d (10 d) at $29^\circ\text{C}$ (7). An EIP longer than 7 d was reported in ref. 15 at similar temperature. Model estimates for dengue suggest $eip_1 \sim 8–9$ d at $29^\circ\text{C}$ . The 1.03 multiplying factor for <i>Ae. albopictus</i> was derived from ref. 67	68
$m_1$ $m_2$	Vector to host ratios	$m_1 = 1,000 \times prob_1$ $m_2 = 1,000 \times prob_2$	$m$ was derived as the product of a constant with probability of occurrences published at global scale for both mosquito vectors; <i>Materials and Methods</i> has additional details	51
$r$	Recovery rate (per day)	$r = 1/7$		69

$T$ , temperature.

\*Parameters that are dynamically simulated in space and time over the whole time period.

www.pnas.org/cgi/doi/10.1073/pnas.1700746114