Model Parameter	**Symbol**	**Min. Value**	**Max. Value**	**A**	**B**
M: Biting rate	a	0.1	0.5	0.3	0.3
H: Recovery rate ($I \to R$)	r_0	1e-06	0.01	0.0063	0.0063
H: Birth Rate	B	2.7e-05	0.00018	0.00014	0.00014
H: Rate of loss of immunity	σ_0	0	0.1	0.00067	0.00067
H: Recovery rate ($I \to R$)	r_0	1e-06	0.01	0.0063	0.0063
H: Exposed number	n_H	1	50	1	1
H: Exposed rate	γ	0.048	0.14	0.05	0.05
H: External force of infection	β_e	0	0.0001	0	0
H: Detection probability	χ	0	0.5	0.2	0.2
H: Recovery rate ($C \to S$)	ρ	0	1	0.2	0.2
H: Case probability	η	1e-06	0.1	0.01	0.01
H: Recovery rate ($C \to I$)	ν	0.2	1	0.1	0.1
M: Biting rate	a	0.1	0.5	0.3	0.3
M: Infectivity probability ($M \to H$)	b	0.01	1	0.5	0.5
M: Infectivity probability ($H \to M$)	c	0	1	0.2	0.2
M: Death rate	δ	0.01	0.1	0.04	0.04
M: Death factor due to rain peaks	δ_R	0.01	0.1	0	0
M: δ_{PE}	δ_{PE}	0.01	0.1	1	1
M: Fecundity	F	10	1e+02	20	20

Table 2: A and B are the two parameter combinations around which we have done most of the exploration of the parameter space. See figures. Minimum and maximum values define the subregion of the parameter space we have explored. Legend: H: Human, M: Mosquito, L: Larva, P: *Plasmodium*