

Table 2. Time-varying model parameters

Parameters	Definition and unit
S_i	Water contact index (average water contact area (m ²)•minute/day)
I_c	Temperature-dependent cercarial infectivity
I_m	Temperature-dependent miracidial infectivity
x	Susceptible snail density
τ_z	Temperature-dependent susceptible snail development time (day)
r_c	Fraction of cercariae (from infected snails) entering irrigation ditch environment due to rainfall
r_e	Fraction of eggs entering irrigation ditch environment and hatching to miracidia due to rainfall