Table S5a. Values of the Watanabe-Akaike information criterion (WAIC) for models used for the assessment of potential influential factors (without illuminance) of female *Ae. albopictus* for the period from November 2016 to November 2017.

Included terms																								WAIC
Intercept	*Month*	*ns*(TPWAD)		*ns*(*Temp*)						*ns*(*RH*)						*d_or_n*	*ns*(*Wind*)						
		df=4	*df*=6	*df*=1	*df*=2	*df*=3	*df*=4	*df*=5	*df*=6	*df*=1	*df*=2	*df*=3	*df*=4	*df*=5	*df*=6		*df*=1	*df*=2	*df*=3	*df*=4	*df*=5	*df*=6	
✓	✓	✓																						2476.75
✓	✓		✓																					2468.72
✓	✓	✓		✓																				2479.30
✓	✓	✓			✓																			2381.97
✓	✓	✓				✓																		2385.42
✓	✓	✓					✓																	2386.50
✓	✓	✓						✓																2388.87
✓	✓	✓							✓															2391.65
✓	✓	✓								✓														2451.59
✓	✓	✓									✓													2454.13
✓	✓	✓										✓												2453.98
✓	✓	✓											✓											2455.17
✓	✓	✓												✓										2439.66
✓	✓	✓													✓									2433.45
✓	✓	✓														✓								2454.28
✓	✓	✓															✓							2468.04
✓	✓	✓																✓						2467.21
✓	✓	✓																	✓					2467.91
✓	✓	✓																		✓				2455.54
✓	✓	✓																			✓			2454.94
✓	✓	✓																				✓		2455.57
✓	✓	✓			✓					✓														2378.66
✓	✓	✓			✓						✓													2380.82
✓	✓	✓			✓							✓												2382.42
✓	✓	✓			✓								✓											2383.99
✓	✓	✓			✓									✓										2376.05
✓	✓	✓			✓										✓									2369.54
✓	✓	✓			✓					✓						✓								2350.90
✓	✓	✓			✓					✓						✓	✓							2352.17
✓	✓	✓			✓					✓						✓		✓						2351.50
✓	✓	✓			✓					✓						✓			✓					2351.68
✓	**✓**	**✓**			**✓**					**✓**						**✓**				**✓**				**2334.14**
✓	✓	✓			✓					✓						✓					✓			2333.66
✓	✓	✓			✓					✓						✓						✓		2334.64

Month represents a categorical variable indicating month. *ns*(.) means natural cubic spline function of a variable. TPWAD represents the time point within a day. *Temp*, *RH*, and *Wind* represent temperature, relative humidity, and wind speed, respectively. *df* means degree of freedom. *d_or_n* represents whether the time point is in the daytime or at nighttime.
Note. The final model was in bold.

Table S5b. Values of the Watanabe-Akaike information criterion (WAIC) for models used for the assessment of potential influential factors (with illuminance) of female *Ae. albopictus* for the period from between November 2016 to November 2017.

Included terms													WAIC
Intercept	*Month*	*ns*(TPWAD, *df*=4)	*ns*(log(*Illum*))					*ns*(*Wind*)						
			df=2	*df*=3	*df*=4	*df*=5	*df*=6	*df*=1	*df*=2	*df*=3	*df*=4	*df*=5	*df*=6	
✓	✓	✓	✓											2456.82
✓	✓	✓		✓										2420.02
✓	✓	✓			✓									2410.93
✓	✓	✓				✓								2414.91
✓	✓	✓					✓							2412.93
✓	✓	✓		✓				✓						2410.47
✓	✓	✓		✓					✓					2409.33
✓	✓	✓		✓						✓				2409.47
✓	**✓**	**✓**		**✓**							**✓**			**2397.81**
✓	✓	✓		✓								✓		2398.36
✓	✓	✓		✓									✓	2400.08

Month represents a categorical variable indicating month. *ns*(.) means natural cubic spline function of a variable. TPWAD represents the time point within a day. *df* means degree of freedom. log(*Illum*+0.001) means the log-transformation of (*Illum* + 0.001).
Note. The final model was in bold.

Table S5c. Values of the Watanabe-Akaike information criterion (WAIC) for models used for the assessment of potential influential factors (without illuminance) of male *Ae. albopictus* for the period from November 2016 to November 2017.

Included terms																								WAIC
Intercept	*Month*	*ns*(TPWAD)		*ns*(*Temp*)						*ns*(*RH*)						*d_or_n*	*ns*(*Wind*)						
		df=4	*df*=6	*df*=1	*df*=2	*df*=3	*df*=4	*df*=5	*df*=6	*df*=1	*df*=2	*df*=3	*df*=4	*df*=5	*df*=6		*df*=1	*df*=2	*df*=3	*df*=4	*df*=5	*df*=6	
✓	✓	✓																						1641.24
✓	✓		✓																					1615.56
✓	✓		✓	✓																				1618.93
✓	✓		✓		✓																			1542.41
✓	✓		✓			✓																		1542.95
✓	✓		✓				✓																	1544.94
✓	✓		✓					✓																1546.99
✓	✓		✓						✓															1546.34
✓	✓		✓							✓														1599.56
✓	✓		✓								✓													1594.54
✓	✓		✓									✓												1596.11
✓	✓		✓										✓											1597.99
✓	✓		✓											✓										1594.08
✓	✓		✓												✓									1596.56
✓	✓		✓													✓								1601.58
✓	✓		✓														✓							1611.65
✓	✓		✓															✓						1613.15
✓	✓		✓																✓					1612.90
✓	✓		✓																	✓				1612.80
✓	✓		✓																		✓			1614.62
✓	✓		✓																			✓		1614.54
✓	✓		✓		✓					✓														1538.15
✓	✓		✓		✓						✓													1539.45
✓	✓		✓		✓							✓												1541.19
✓	✓		✓		✓								✓											1544.30
✓	✓		✓		✓									✓										1542.46
✓	✓		✓		✓										✓									1543.74
✓	**✓**		**✓**		**✓**					**✓**						**✓**								**1520.58**
✓	✓		✓		✓					✓						✓	✓							1522.07
✓	✓		✓		✓					✓						✓		✓						1522.51
✓	✓		✓		✓					✓						✓			✓					1521.85
✓	✓		✓		✓					✓						✓				✓				1522.41
✓	✓		✓		✓					✓						✓					✓			1524.38
✓	✓		✓		✓					✓						✓						✓		1524.74

Month represents a categorical variable indicating month. *ns*(.) means natural cubic spline function of a variable. TPWAD represents the time point within a day. *Temp*, *RH*, and *Wind* represent temperature, relative humidity, and wind speed, respectively. *df* means degree of freedom. *d_or_n* represents whether the time point is in the daytime or at nighttime.
Note. The final model was in bold.

Table S5d. Values of the Watanabe-Akaike information criterion (WAIC) for models used for the assessment of potential influential factors (with illuminance) of male *Ae. Albopictus* for the period from November 2016 to November 2017.

Included terms													WAIC
Intercept	*Month*	*ns*(TPWAD, *df*=6)	*ns*(log(*Illum*))					*ns*(*Wind*)						
			df=2	*df*=3	*df*=4	*df*=5	*df*=6	*df*=1	*df*=2	*df*=3	*df*=4	*df*=5	*df*=6	
✓	✓	✓	✓											1594.09
✓	✓	✓		✓										**1574.23**
✓	✓	✓			✓									1573.75
✓	✓	✓				✓								1571.36
✓	✓	✓					✓							1575.41
✓	✓	✓		✓				✓						1573.34
✓	✓	✓		✓					✓					1575.10
✓	✓	✓		✓						✓				1574.98
✓	✓	✓		✓							✓			1575.94
✓	✓	✓		✓								✓		1577.64
✓	✓	✓		✓									✓	1577.76

Month represents a categorical variable indicating month. *ns*(.) means natural cubic spline function of a variable. TPWAD represents the time point within a day. *df* means degree of freedom. log(*Illum*+0.001) means the log-transformation of (*Illum* + 0.001).
Note. The final model was in bold.