## Supplementary information

**Table SI: Search terms and search results from databases**

|  |  |  |
| --- | --- | --- |
| **Database** | **Search Term** | **Search Results** |
| Scopus | TITLE-ABS-KEY ( "anopheles mosquito" OR "malaria" ) AND ( "temperature" OR season ) AND ( "development time" OR "survival" OR "longevity" OR "fecundity" OR "gonotrophic cycle" OR "biting rate" OR "enzyme" OR "insecticide" ) | **5,926** |
| PubMed | ("anopheles mosquito" OR "malaria" ) AND ( "temperature" OR season ) AND ( "development time" OR "survival" OR "longevity" OR "fecundity" OR "gonotrophic cycle" OR "biting rate" OR "enzyme" OR "insecticide") | **1,156** |
| Science Direct | ("Anopheles mosquito") AND ("temperature" OR "season") AND ("longevity" OR "fecundity" OR "gonotrophic cycle" OR "development time" OR "enzyme" OR "insecticide") | **1,403** |
| Google Scholar | ("Anopheles mosquito") AND ("temperature" OR "season") AND ("longevity" OR "fecundity" OR "gonotrophic cycle" OR "development time" OR "enzyme" OR "insecticide") | **8,130** |
| ProQuest | ("Anopheles mosquito") AND ("temperature" OR "season") AND ("longevity" OR "fecundity" OR "gonotrophic cycle" OR "development time" OR "enzyme" OR "insecticide") | **850** |
| Web of Science | ("Anopheles mosquito") AND ("temperature" OR "season") AND ("longevity" OR "fecundity" OR "gonotrophic cycle" OR "development time" OR "enzyme" OR "insecticide") | **17** |
| Hand search |  | 4 |

**Table S2: List of studies excluded with reasons**

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| --- | --- | --- |
| **Sn** | **Author name** | **Reason for exclusion** |
| 1 | [Abiodun et al. [1]](#_ENREF_1) | 1 |
| 2 | [Abiodun et al. [2]](#_ENREF_2) | 1 |
| 3 | [Abiodun et al. [3]](#_ENREF_3) | 1 |
| 4 | [Agusto et al. [4]](#_ENREF_4) | 1 |
| 5 | [Beck-Johnson [5]](#_ENREF_5) | 1 |
| 6 | [Beck-Johnson et al. [6]](#_ENREF_6) | 1 |
| 7 | [Beck-Johnson et al. [7]](#_ENREF_7) | 1 |
| 8 | [Blanford et al. [8]](#_ENREF_8) | 2 |
| 9 | [Charlwood and Braganca [9]](#_ENREF_9) | 3 |
| 10 | [Christiansen-Jucht et al. [10]](#_ENREF_10) | 1 |
| 11 | [Culler et al. [11]](#_ENREF_11) | 1 |
| 12 | [Ewing et al. [12]](#_ENREF_12) | 1 |
| 13 | [Glunt et al. [13]](#_ENREF_13) | 2 |
| 14 | [Gonçalvez De Carvalho et al. [14]](#_ENREF_14) | 3 |
| 15 | [Lindsay et al. [15]](#_ENREF_15) | 4 |
| 16 | [Lunde et al. [16]](#_ENREF_16) | 1 |
| 17 | [Lyons et al. [17]](#_ENREF_17) | 1 |
| 18 | [Mordecai et al. [18]](#_ENREF_18) | 2 |
| 19 | [Mukhtar et al. [19]](#_ENREF_19) | 1 |
| 20 | [Murdock et al. [20]](#_ENREF_20) | 2 |
| 21 | [Murdock et al. [21]](#_ENREF_21) | 2 |
| 22 | [Okechukwu et al. [22]](#_ENREF_22) | 4 |
| 23 | [Okuneye et al. [23]](#_ENREF_23) | 1 |
| 24 | [Owiti and Christopher [24]](#_ENREF_24) | 3 |
| 25 | [Owusu et al. [25]](#_ENREF_25) | 2 |
| 26 | [Paaijmans et al. [26]](#_ENREF_26) | 3 |
| 27 | [Paaijmans et al. [27]](#_ENREF_27) | 2 |
| 28 | [Paaijmans et al. [28]](#_ENREF_28) | 1 |
| 29 | [Parham and Michael [29]](#_ENREF_29) | 1 |
| 30 | [Parham and Michael [30]](#_ENREF_30) | 1 |
| 31 | [Parham et al. [31]](#_ENREF_31) | 1 |
| 32 | [Shimaponda-Mataa et al. [32]](#_ENREF_32) | 1 |
| 33 | [Wang et al. [33]](#_ENREF_33) | 1 |
| 34 | [Wei-Ming et al. [34]](#_ENREF_34) | 4 |
| 35 | [Yamana and Eltahir [35]](#_ENREF_35) | 1 |
| 36 | [Zakharova et al. [36]](#_ENREF_36) | 4 |

*1 = mathematical models; 2 = Opinions/Letters/Reports; 3 = Study did not report on any of the outcomes of interest; 4 = Full text not available*

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