**S2 File.** **Database on Penaeid embryonic and larval duration by stages.**  T, water temperature (ºC).

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Species** | **T (ºC)** | **Stage duration (days)** | **Stage** | **Reference** |
| *Artemesia longinaris* | 20.00 | 1.00 | eggs | [1] |
| 17.00 | 1.50 | eggs |
| 20.00 | 4.00 | Nauplius |
| 17.00 | 5.00 | Nauplius |
| 20.00 | 11.00 | Protozoa |
| 17.00 | 12.00 | Protozoa |
| 20.00 | 12.00 | Mysis |
| 17.00 | 14.00 | Mysis |
| *Macropetasma africanus* | 22.00 | 0.50 | eggs | [2] |
| 22.00 | 6.00 | Nauplius |
| 22.00 | 6.00 | Protozoa |
| 22.00 | 7.00 | Mysis |
| *Metapeanopsis dalei* | 25.00 | 0.84 | eggs | [3] |
| 25.00 | 2.00 | Nauplius |
| 25.00 | 6.58 | Protozoa |
| 25.00 | 5.04 | Mysis |
| *Metapeanopsis stridulans* | 25.75 | 0.62 | eggs | [4] |
| 25.75 | 2.06 | Nauplius |
| 25.75 | 5.82 | Protozoa |
| 25.75 | 8.00 | Mysis |
| *Metapenaeus affinis* | 27.50 | 0.58 | eggs | [5] |
| 27.50 | 2.12 | Nauplius |
| 27.50 | 5.67 | Protozoa |
| 27.50 | 6.88 | Mysis |
| 27.50 | 1.48 | Nauplius | [6] |
| 26.10 | 0.67 | eggs | [7] |
| 26.10 | 2.04 | Nauplius |
| 26.10 | 6.00 | Protozoa |
| 26.10 | 7.50 | Mysis |
| 29.70 | 0.31 | eggs | [8] |
| 28.80 | 0.36 | eggs |
| 29.70 | 0.42 | eggs |
| 29.70 | 1.60 | Nauplius |
| 28.80 | 1.84 | Nauplius |
| 29.70 | 2.08 | Nauplius |
| 29.70 | 3.79 | Protozoa |
| 28.80 | 4.88 | Protozoa |
| 29.70 | 5.42 | Mysis |
| 28.80 | 5.48 | Mysis |
| 29.70 | 5.54 | Mysis |
| 29.70 | 5.96 | Protozoa |
| 30.00 | 0.45 | eggs | [9] |
| 30.00 | 2.55 | Nauplius |
| 30.00 | 6.75 | Mysis |
| 30.00 | 7.50 | Protozoa |
| *Metapenaeus bennettae* | 26.00 | 0.62 | eggs | [10] |
| 26.00 | 2.00 | Nauplius |
| 26.00 | 5.70 | Protozoa |
| 26.00 | 8.75 | Mysis |
| *Metapenaeus brevicornis* | 30.00 | 0.40 | eggs | [11] |
| 30.00 | 1.83 | Nauplius |
| 30.00 | 5.00 | Protozoa |
| 27.00 | 0.48 | eggs | [12] |
| 27.00 | 1.48 | Nauplius |
| 27.00 | 8.73 | Protozoa |
| 27.00 | 12.81 | Mysis |
| *Metapenaeus dalli* | 26.00 | 2.00 | Nauplius | [13] |
| 26.00 | 4.00 | Protozoa |
| 26.00 | 4.00 | Mysis |
| *Metapenaeus dobsoni* | 26.15 | 0.69 | eggs | [14] |
| 26.15 | 2.00 | Nauplius |
| 26.15 | 6.00 | Protozoa |
| 26.15 | 7.50 | Mysis |
| 30.00 | 0.35 | eggs | [15] |
| 30.00 | 1.45 | Nauplius |
| 30.00 | 5.60 | Protozoa |
| 30.00 | 5.96 | Mysis |
| *Metapenaeus ensis* | 27.00 | 1.00 | eggs | [16] |
| 27.00 | 1.50 | Nauplius |
| 27.00 | 4.50 | Protozoa |
| 27.00 | 6.50 | Mysis |
| 29.00 | 0.53 | eggs | [17] |
| 29.00 | 1.99 | Nauplius |
| 29.00 | 3.66 | Mysis |
| 29.00 | 4.74 | Protozoa |
| *Metapenaeus joyneri* | 22.50 | 0.79 | eggs | [18] |
| 22.50 | 2.58 | Nauplius |
| 22.50 | 9.00 | Protozoa |
| 22.50 | 10.50 | Mysis |
| 22.00 | 10.00 | Mysis |
| *Metapenaeus macleayi* | 26.00 | 0.67 | eggs | [19] |
| 26.00 | 1.62 | Nauplius |
| 26.00 | 5.50 | Protozoa |
| 26.00 | 8.25 | Mysis |
| *Metapenaeus monoceros* | 24.00 | 0.75 | eggs | [20] |
| 28.00 | 0.56 | eggs |
| 32.00 | 0.47 | eggs |
| 28.50 | 1.58 | Nauplius | [21] |
| 27.50 | 1.48 | Nauplius | [6] |
| 26.10 | 0.67 | eggs | [22] |
| 26.10 | 2.17 | Nauplius |
| 26.10 | 6.50 | Protozoa |
| 26.10 | 10.50 | Mysis |
| 26.50 | 0.94 | eggs | [23] |
| 26.50 | 1.33 | Nauplius |
| 26.50 | 6.00 | Mysis |
| 26.50 | 6.50 | Protozoa |
| *Metapenaeus moyebi* | 26.50 | 4.00 | Protozoa | [24] |
| 26.50 | 7.00 | Mysis |
| 31.00 | 0.35 | eggs | [25] |
| 29.00 | 0.83 | eggs |
| 31.00 | 1.54 | Nauplius |
| 29.00 | 1.83 | Nauplius |
| 31.00 | 5.00 | Protozoa |
| 29.00 | 5.50 | Protozoa |
| 31.00 | 9.50 | Mysis |
| 29.00 | 10.50 | Mysis |
| *Parapenaeopsis stylifera* | 25.00 | 0.38 | eggs | [26] |
| 25.00 | 2.21 | Nauplius |
| 25.00 | 5.71 | Protozoa |
| 25.00 | 7.12 | Mysis |
| 26.65 | 0.65 | eggs | [27] |
| 26.65 | 1.88 | Nauplius |
| 26.65 | 5.75 | Protozoa |
| 26.65 | 13.00 | Mysis |
| 30.00 | 0.29 | eggs | [28] |
| 30.00 | 1.54 | Nauplius |
| 30.00 | 9.71 | Protozoa |
| 30.40 | 7.00 | eggs |
| 30.40 | 1.67 | Nauplius |
| 30.40 | 8.75 | Protozoa |
| *Parapenaeus longirostris* | 16.00 | 2.25 | eggs | [29] |
| *Penaeus aztecus* | 30.20 | 0.50 | eggs | [30] |
| 30.20 | 1.54 | Nauplius |
| 27.50 | 2.25 | Nauplius | [31] |
| 27.00 | 3.63 | Nauplius |
| 27.50 | 5.44 | Mysis |
| 27.50 | 7.56 | Protozoa |
| 27.00 | 7.56 | Mysis |
| 27.00 | 7.85 | Protozoa |
| *Penaeus brevirostris* | 27.00 | 0.54 | eggs | [32] |
| 27.00 | 1.44 | Nauplius |
| 27.00 | 4.08 | Mysis |
| 27.00 | 4.38 | Protozoa |
| *Penaeus californiensis* | 29.00 | 0.61 | eggs | [33] |
| 29.00 | 1.71 | Nauplius |
| 29.00 | 4.54 | Protozoa |
| 29.00 | 4.58 | Mysis |
| *Penaeus chinensis* | 24.30 | 1.44 | eggs | [34] |
| 19.50 | 1.56 | eggs |
| 24.30 | 4.17 | Mysis |
| 19.50 | 4.60 | Nauplius |
| 24.30 | 4.73 | Nauplius |
| 24.30 | 5.33 | Protozoa |
| 19.50 | 6.71 | Mysis |
| 19.50 | 8.42 | Protozoa |
| *Penaeus duorarum* | 28.00 | 0.58 | eggs | [35] |
| 26.00 | 7.17 | Mysis | [36] |
| 26.00 | 7.56 | Protozoa |
| 21.00 | 10.50 | Mysis |
| 21.00 | 16.00 | Protozoa |
| 30.00 | 0.50 | eggs | [37] |
| 30.00 | 1.56 | Nauplius |
| 30.00 | 3.47 | Mysis |
| 30.00 | 4.54 | Protozoa |
| 27.50 | 1.81 | Nauplius | [31] |
| 23.00 | 2.73 | Nauplius |
| 23.00 | 3.58 | Mysis |
| 27.50 | 3.67 | Mysis |
| 27.50 | 5.56 | Protozoa |
| 23.00 | 6.27 | Protozoa |
| *Penaeus esculentus* | 26.25 | 0.54 | eggs | [38] |
| *Penaeus indicus* | 25.60 | 0.69 | eggs | [39] |
| 25.60 | 1.88 | Nauplius |
| 25.60 | 5.50 | Protozoa |
| 25.60 | 5.50 | Mysis |
| *Penaeus japonicus* | 28.00 | 0.58 | eggs | [40] |
| 28.00 | 1.54 | Nauplius |
| 28.00 | 5.00 | Protozoa |
| 28.00 | 5.00 | Mysis |
| 28.00 | 1.50 | Nauplius | [41] |
| 28.00 | 3.00 | Mysis |
| 28.00 | 5.00 | Protozoa |
| *Penaeus kerathurus* | 25.20 | 0.75 | eggs | [29] |
| 24.00 | 0.85 | eggs |
| 20.00 | 1.38 | eggs |
| 20.00 | 2.81 | Nauplius |
| 27.50 | 2.04 | Nauplius | [42] |
| 27.50 | 4.00 | Mysis |
| 27.50 | 5.50 | Protozoa |
| 27.00 | 2.08 | Nauplius | [43] |
| 20.00 | 4.42 | Nauplius |
| 29.50 | 0.50 | eggs | [44] |
| 29.50 | 1.50 | Nauplius |
| 29.50 | 3.71 | Mysis |
| 29.50 | 4.67 | Protozoa |
| 24.00 | 2.00 | Nauplius | [45] |
| 24.00 | 6.00 | Mysis |
| 24.00 | 8.00 | Protozoa |
| 25.20 | 0.75 | eggs | [29] |
| 24.00 | 0.85 | eggs |
| 20.00 | 1.38 | eggs |
| *Penaeus latisulcatus* | 24.36 | 2.50 | Nauplius | [46] |
| 20.35 | 3.00 | Nauplius |
| 22.17 | 3.00 | Nauplius |
| 24.36 | 5.00 | Protozoa |
| 24.36 | 5.20 | Mysis |
| 17.12 | 5.40 | Nauplius |
| 17.12 | 11.00 | Mysis |
| 17.12 | 14.90 | Protozoa |
| 22.17 | 5.60 | Mysis |
| 22.17 | 6.50 | Protozoa |
| 20.35 | 8.30 | Mysis |
| 20.35 | 8.80 | Protozoa |
| 29.20 | 0.52 | eggs | [47] |
| 29.20 | 1.52 | Nauplius |
| 29.20 | 2.96 | Protozoa |
| 29.20 | 3.00 | Mysis |
| *Penaeus marginatus* | 25.00 | 0.83 | eggs | [48] |
| *Penaeus merguiensis* | 27.50 | 0.55 | eggs | [49] |
| 27.50 | 1.67 | Nauplius |
| 27.50 | 2.83 | Protozoa |
| 27.50 | 4.19 | Mysis |
| 29.00 | 4.00 | Protozoa | [50] |
| 29.00 | 3.00 | Mysis |
| 33.00 | 3.00 | Mysis |
| 33.00 | 4.00 | Protozoa |
| 27.00 | 0.48 | eggs | [12] |
| *Penaeus monodon* | 28.00 | 0.46 | eggs | [51] |
| 28.00 | 1.50 | Nauplius |
| 28.00 | 4.50 | Mysis |
| 28.00 | 5.00 | Protozoa |
| 33.00 | 0.58 | eggs | [52] |
| 28.00 | 0.67 | eggs |
| 23.00 | 0.92 | eggs |
| 28.00 | 0.98 | Nauplius |
| 33.00 | 1.63 | Nauplius |
| 23.00 | 2.43 | Nauplius |
| 27.50 | 1.98 | Nauplius | [53] |
| 27.50 | 4.50 | Mysis |
| 27.50 | 5.25 | Protozoa |
| 27.50 | 0.68 | eggs |
| 28.80 | 0.50 | eggs | [54] |
| 28.80 | 2.10 | Nauplius |
| 28.80 | 4.00 | Mysis |
| 28.80 | 6.00 | Protozoa |
| *Penaeus occidentalis* | 27.00 | 0.60 | eggs | [55] |
| 27.00 | 1.60 | Nauplius |
| 27.00 | 3.79 | Mysis |
| 27.00 | 4.76 | Protozoa |
| *Penaeus paulensis* | 30.00 | 1.50 | Nauplius | [56] |
| 25.00 | 2.00 | Nauplius |
| 30.00 | 3.00 | Mysis |
| 20.00 | 5.00 | Nauplius |
| 25.00 | 7.00 | Mysis |
| 25.00 | 7.5 | Protozoa |
| 15.00 | 9.00 | Nauplius |
| 20.00 | 9.50 | Protozoa |
| 20.00 | 9.50 | Mysis |
| 15.00 | 12.00 | Mysis |
| 26.00 | 0.50 | eggs | [57] |
| 26.00 | 2.00 | Nauplius |
| 26.00 | 3.00 | Protozoa |
| 26.00 | 3.00 | Mysis |
| *Penaeus penicillatus* | 31.23 | 1.38 | Nauplius | [58] |
| 31.23 | 3.29 | Mysis |
| 31.23 | 3.46 | Protozoa |
| 25.50 | 2.00 | Nauplius | [59] |
| 25.50 | 3.50 | Mysis |
| 25.50 | 4.50 | Protozoa |
| *Penaeus plebejus* | 26.00 | 0.73 | eggs | [19] |
| 26.00 | 2.00 | Nauplius |
| 26.00 | 5.54 | Protozoa |
| 26.00 | 8.21 | Mysis |
| *Penaeus schmidti* | 28.50 | 2.29 | Nauplius | [60] |
| 28.50 | 3.46 | Protozoa |
| 28.50 | 4.50 | Mysis |
| *Penaeus semisulcatus* | 24.00 | 0.73 | eggs | [61] |
| 28.00 | 0.60 | eggs |
| 32.00 | 0.48 | eggs |
| 31.00 | 0.52 | eggs | [62] |
| 31.00 | 1.75 | Nauplius |
| 31.00 | 4.00 | Mysis |
| 31.00 | 6.42 | Protozoa |
| 28.00 | 0.58 | eggs | [63] |
| 28.00 | 2.38 | Nauplius |
| 28.00 | 5.88 | Protozoa |
| 28.00 | 7.21 | Mysis |
| 25.50 | 0.75 | eggs | [64] |
| 25.50 | 2.17 | Nauplius |
| 25.50 | 4.00 | Mysis |
| 25.50 | 5.08 | Protozoa |
| 28.00 | 0.59 | eggs | [65] |
| 29.00 | 1.97 | Nauplius |
| 29.00 | 2.96 | Mysis |
| 29.00 | 4.38 | Protozoa |
| *Penaeus setiferus* | 27.50 | 2.40 | Nauplius | [31] |
| 27.50 | 4.54 | Protozoa |
| 27.50 | 4.60 | Mysis |
| *Penaeus stylirostris* | 29.00 | 0.57 | eggs | [66] |
| 29.00 | 1.50 | Nauplius |
| 29.00 | 6.50 | Protozoa |
| 29.00 | 6.50 | Mysis |
| 28.25 | 0.63 | eggs | [67] |
| 28.25 | 2.08 | Nauplius |
| 28.25 | 3.71 | Mysis |
| 28.25 | 5.25 | Protozoa |
| *Penaeus vannamei* | 33.30 | 0.50 | eggs | [68] |
| 33.30 | 2.08 | Nauplius |
| 33.30 | 5.25 | Protozoa |
| 33.30 | 3.71 | Mysis |
| 29.50 | 0.53 | eggs | [69] |
| 29.50 | 1.60 | Nauplius |
| *Trachypenaeus curvirostris* | 26.00 | 0.63 | eggs | [70] |
| 26.00 | 1.71 | Nauplius |
| 26.00 | 3.07 | Mysis |
| 26.00 | 5.60 | Protozoa |
| *Pleoticus muelleri* | 20.00 | 1.00 | eggs | [71] |
| 20.00 | 1.98 | Nauplius |
| 20.00 | 7.00 | Mysis |
| 20.00 | 8.50 | Protozoa |

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