



## APPENDIX

### Appendix 1 Sampling locations



Demak, Central Java



Muara Gembong, West Java



Labuhan Maringgai, East Lampung

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1. Dilarang mengutip sebagian atau seluruh karya tulis ini tanpa mencantumkan dan menyebutkan sumber :
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Appendix 2 Morphological measurements of examined *P. pelagicus* from the three locations.

a) Demak

| CW    | ICW   | CL   | LME  | RME  | Gender | Weight  |
|-------|-------|------|------|------|--------|---------|
| 93    | 75    | 48   | 37   | 35   | M      | 55      |
| 108   | 83    | 52   | 38   | 39   | F      | 72      |
| 101   | 83    | 52   | 37   | 34   | F      | 70      |
| 84    | 74    | 46   | 38   | 38   | M      | 45      |
| 101   | 83    | 44   | 23   | 38   | F      | 60      |
| 106   | 81    | 57   | 34   | 36   | F      | 66      |
| 108   | 91    | 52   | 37   | 36   | F      | 104     |
| 81    | 62    | 35   | 22   | 24   | F      | 34      |
| 102   | 87    | 53   | 31   | 24   | F      | 67      |
| 103   | 83    | 42   | 21   | 37   | M      | 57      |
| 91    | 73    | 42   | 23   | 38   | F      | 50      |
| 74    | 56    | 36   | 24   | 27   | F      | 23      |
| 93    | 74    | 47   | 31   | 34   | F      | 46      |
| 83    | 66    | 36   | 31   | 31   | M      | 29      |
| 92    | 74    | 41   | 31   | 26   | F      | 43      |
| 75    | 62    | 38   | 25   | 26   | F      | 28      |
| 100   | 81    | 48   | 45   | 42   | M      | 76      |
| 94    | 72    | 46   | 41   | 46   | M      | 57      |
| 84    | 65    | 34   | 21   | 21   | M      | 26      |
| 100   | 80    | 41   | 36   | 36   | M      | 64      |
| 130   | 110   | 65   | 72   | 73   | M      | 183     |
| 103   | 79    | 43   | 31   | 31   | F      | 59      |
| 105   | 84    | 49   | 35   | 35   | F      | 75      |
| 98    | 77    | 48   | 36   | 37   | M      | 60      |
| 99    | 73    | 42   | 30   | 32   | F      | 53      |
| 126   | 104   | 59   | 41   | 46   | F      | 130     |
| 115   | 89    | 50   | 50   | 50   | M      | 103     |
| 119   | 92    | 53   | 38   | 39   | F      | 102     |
| 85    | 68    | 39   | 34   | 33   | M      | 44      |
| 117   | 93    | 53   | 43   | 48   | M      | 110     |
| 140   | 108   | 60   | 47   | 45   | F      | 170     |
| 124   | 98    | 58   | 43   | 40   | F      | 124     |
| 111   | 90    | 47   | 35   | 32   | F      | 78      |
| 104   | 82    | 49   | 33   | 33   | F      | 72      |
| 86    | 70    | 36   | 26   | 27   | F      | 37      |
| 95.50 | 73.3  | 40.2 | 30.4 | 29.5 | M      | 46.13   |
| 102.6 | 81.7  | 47.6 | 39.1 | 40.6 | M      | 69.4296 |
| 101.9 | 78.5  | 47.2 | 38.9 | 33.7 | F      | 52.6213 |
| 115.7 | 115.7 | 89.4 | 36.9 | 36.2 | F      | 98.7865 |
| 94.3  | 94.3  | 81.2 | 45.5 | 45.4 | M      | 64.6027 |
| 110.4 | 110.4 | 84.8 | 34.3 | 36.2 | F      | 76.1716 |
| 95.1  | 95.1  | 75.1 | 43.1 | 43.5 | M      | 43.9168 |
| 92.6  | 92.6  | 72.3 | 30.4 | 29.5 | F      | 45.9772 |

## b) Muara Gembong

| CW    | ICW   | CL   | LME  | RME  | Gender | Weight  |
|-------|-------|------|------|------|--------|---------|
| 106.7 | 85.7  | 54.9 | 33.5 | 35.3 | F      | 93.9088 |
| 109.5 | 87.7  | 52.7 | 33.5 | 35.3 | M      | 97.8035 |
| 113   | 90.9  | 55.3 | 46.8 | 44.9 | M      | 104.166 |
| 88.9  | 12.6  | 43.3 | 46.9 | 43.5 | M      | 51.802  |
| 88.3  | 73    | 42.8 | 34.6 | 34.5 | F      | 41.6504 |
| 82.2  | 65.8  | 40.2 | 29.3 | 29.4 | M      | 32.0185 |
| 88.4  | 69.4  | 40.5 | 29.2 | 29.2 | F      | 40.3726 |
| 95.5  | 75.2  | 47.5 | 26.7 | 26.8 | F      | 57.9128 |
| 106.3 | 84.9  | 52.4 | 30.4 | 30.4 | M      | 74.5723 |
| 101.5 | 79.8  | 50   | 33.5 | 32.8 | F      | 68.7283 |
| 99.4  | 80.5  | 49.4 | 34.7 | 33.4 | F      | 72.0891 |
| 89.6  | 70.6  | 42.9 | 31.9 | 31.2 | M      | 49.774  |
| 86.5  | 69.2  | 40.1 | 31.2 | 32.5 | M      | 43.217  |
| 88.4  | 67.8  | 39.7 | 31.2 | 31.9 | F      | 29.6282 |
| 78.2  | 64.7  | 37.7 | 27   | 26.9 | F      | 23.776  |
| 128.1 | 102.6 | 60.9 | 25.5 | 25.2 | M      | 160.136 |
| 89.4  | 68.6  | 40.1 | 57.8 | 56.9 | F      | 42.502  |
| 78.6  | 68.2  | 37.5 | 26.4 | 25.3 | F      | 23.745  |
| 81.4  | 65.3  | 38   | 26.2 | 26.3 | F      | 27.4392 |
| 81.9  | 66.2  | 39.8 | 26   | 26   | F      | 38.5076 |
| 94.9  | 81.3  | 49.7 | 42.5 | 41.6 | M      | 73.6813 |
| 102.2 | 80.4  | 49.4 | 31.7 | 31.7 | F      | 63.6786 |
| 87.2  | 68.8  | 41.3 | 31.2 | 31.2 | M      | 44.14   |
| 134.2 | 110.2 | 68.7 | 53   | 52.6 | M      | 164.552 |
| 94.8  | 81.5  | 48.9 | 37.4 | 31.2 | M      | 59.6404 |
| 101   | 79.6  | 46.8 | 32.3 | 33.2 | F      | 58.764  |
| 87.8  | 69.1  | 40.1 | 25.8 | 28.2 | F      | 41.5257 |
| 109.7 | 86.3  | 54.9 | 43.2 | 43.4 | M      | 93.9306 |
| 81.2  | 65.3  | 38.2 | 26.4 | 25.5 | F      | 35.8625 |
| 81.4  | 64.3  | 38.3 | 28.5 | 28.5 | M      | 33.4695 |
| 90.7  | 72.5  | 42.6 | 34.6 | 34.2 | M      | 49.7948 |
| 106.5 | 85    | 51.7 | 36.4 | 37.6 | F      | 82.9219 |
| 117.5 | 94    | 59.7 | 39.1 | 0    | F      | 96.6269 |
| 106.9 | 86.8  | 53.3 | 0    | 0    | F      | 69.1528 |
| 95.3  | 82.2  | 49.1 | 42.8 | 42.4 | M      | 74.2781 |
| 105.3 | 84.8  | 52.3 | 37.4 | 37.6 | F      | 81.6504 |
| 82.4  | 65.7  | 37.9 | 27.1 | 26.8 | F      | 36.2513 |
| 93.4  | 73.2  | 46.5 | 30.2 | 30.6 | M      | 50.4381 |
| 81.7  | 81.7  | 40.4 | 27.2 | 26.8 | F      | 38.5723 |
| 89.2  | 89.2  | 44.2 | 34.4 | 35.1 | F      | 42.765  |
| 108.5 | 108.5 | 44.9 | 40.2 | 40.4 | M      | 97.3651 |
| 87.3  | 87.3  | 46.3 | 31.6 | 31.8 | F      | 40.6502 |
| 89.1  | 89.1  | 41.8 | 29.3 | 29.5 | F      | 41.3267 |
| 98.3  | 98.3  | 50.4 | 30.1 | 29.8 | M      | 70.6732 |
| 88.6  | 88.6  | 41.3 | 31.7 | 32.1 | M      | 48.765  |
| 85.2  | 85.2  | 39.6 | 26.8 | 27.1 | F      | 29.213  |
| 86.4  | 86.4  | 40.2 | 31.5 | 31.8 | M      | 43.1154 |
| 78.6  | 78.6  | 37.5 | 25.4 | 25.3 | F      | 23.754  |
| 88.4  | 88.4  | 42.6 | 29.5 | 29.6 | F      | 41.3025 |
| 81.7  | 81.7  | 41.2 | 29.2 | 29.2 | M      | 32.1168 |

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## c) Labuhan Maringgai

| CW    | ICW   | CL   | LME  | RME  | Gender | Weight   |
|-------|-------|------|------|------|--------|----------|
| 114.8 | 91    | 51.5 | 46.8 | 46.5 | M      | 124.6625 |
| 18.8  | 16.2  | 92.6 | 0    | 62   | F      | 39.8972  |
| 74.3  | 56.7  | 33.4 | 21.7 | 0    | F      | 23.2111  |
| 117.4 | 94.8  | 55.2 | 0    | 46.2 | M      | 105.2792 |
| 105.3 | 83.1  | 47   | 40.3 | 38.8 | M      | 79.662   |
| 115.3 | 92.4  | 52.6 | 36.2 | 34.1 | F      | 104.145  |
| 114.8 | 91    | 51.5 | 46.8 | 46.5 | M      | 124.6625 |
| 102   | 82.4  | 45.9 | 33   | 38   | M      | 76.5399  |
| 104.6 | 83.8  | 49.8 | 41   | 43.6 | M      | 82.0127  |
| 71.9  | 56.1  | 34.9 | 24.6 | 24.4 | M      | 22.1494  |
| 102.7 | 77.3  | 45.8 | 29.2 | 32.3 | F      | 56.7551  |
| 116.3 | 90.7  | 55.3 | 46.2 | 46.3 | M      | 105.4001 |
| 107.6 | 83    | 51   | 33.2 | 33.5 | F      | 74.4613  |
| 104.4 | 81    | 48.9 | 39   | 42.2 | M      | 77.1415  |
| 98.7  | 78.2  | 46.5 | 35.8 | 36.6 | M      | 67.5981  |
| 148.1 | 123.9 | 75.5 | 83.1 | 83.8 | M      | 287.4716 |
| 122.2 | 94.5  | 61.5 | 38.2 | 37.2 | F      | 146.7751 |
| 86    | 68.3  | 41   | 26.2 | 27.8 | F      | 42.7654  |
| 105.4 | 81.9  | 46.5 | 42.6 | 40.3 | M      | 75.4921  |
| 105.5 | 86.1  | 52.1 | 43   | 41.5 | M      | 90.5695  |
| 108.9 | 83.1  | 48.6 | 44.4 | 42.8 | M      | 79.6537  |
| 188   | 162   | 92.6 | 0    | 62   | M      | 396.8972 |
| 97.6  | 79.3  | 48   | 37.2 | 37   | F      | 68.0135  |
| 84.8  | 77    | 46.4 | 31.7 | 31.7 | M      | 64.4545  |
| 76    | 67.6  | 40.6 | 31.5 | 30   | M      | 41.4416  |
| 97.2  | 60.5  | 36.1 | 27   | 25.8 | F      | 32.175   |
| 86    | 74.9  | 43.8 | 29.5 | 27.7 | M      | 54.8982  |
| 114.6 | 66.6  | 39.6 | 27.4 | 27.2 | F      | 31       |
| 92    | 90.2  | 56.7 | 36.5 | 0    | M      | 95       |
| 103.5 | 72.5  | 43.2 | 32.1 | 30   | M      | 51       |
| 90.2  | 84.3  | 48.9 | 40.7 | 41   | M      | 89       |
| 103   | 70.6  | 44.6 | 32.2 | 32   | F      | 60       |
| 80.5  | 82.2  | 49.6 | 33.5 | 33.5 | F      | 78.94    |
| 55.5  | 63.4  | 38.5 | 24.3 | 0    | F      | 32.65    |
| 114.6 | 45.04 | 25.4 | 0    | 0    | M      | 9.68     |
| 115.7 | 89.4  | 55.1 | 48.4 | 50.3 | M      | 107.38   |
| 116.6 | 90.3  | 55.2 | 37.6 | 37.4 | F      | 94       |
| 10.1  | 92.7  | 54.4 | 0    | 37.4 | M      | 99.87    |
| 105.5 | 77.4  | 47   | 31.2 | 43.8 | F      | 62.24    |
| 103.4 | 80.6  | 46.8 | 36.4 | 31.9 | M      | 90.5     |
| 93.1  | 79.5  | 48.7 | 31.9 | 37.3 | F      | 90.94    |
| 82.9  | 72.6  | 41.5 | 0    | 32.6 | F      | 45.47    |
| 132.1 | 68.1  | 41   | 29.4 | 24.9 | M      | 48.49    |
| 104.6 | 109.9 | 69.7 | 72.1 | 29.3 | M      | 213.9165 |
| 155.9 | 82.4  | 50.9 | 42.4 | 66.4 | M      | 81.2466  |
| 129.5 | 130.3 | 78.4 | 52.4 | 40.7 | F      | 234.1679 |
| 117.4 | 102.8 | 62.3 | 44.2 | 0    | F      | 146.8387 |
| 103.2 | 80.1  | 48.2 | 0    | 43.1 | M      | 67.3738  |
| 84.1  | 69.8  | 40.9 | 40.4 | 39.7 | M      | 39.9118  |
| 83.1  | 64.3  | 38.8 | 29.6 | 29.6 | F      | 28.9887  |



### Appendix 3 Crabs sample examination and measurements



Separation of the crab organs



Length measurements



Weight measurements

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Appendix 4 Infection patterns of ectoparasites in blue swimming crabs (*P. pelagicus*) in Demak  
n : 43

| Parasites                                   | Infected <i>P. pelagicus</i> | Parasite amount | Prevalence | Intensity range | Mean intensity | Mean abundance |
|---|------------------------------|-----------------|------------|-----------------|----------------|----------------|
| <i>Octolasmis warwickii</i>                 | 16                           | 260             | 37         | 2 - 87          | 16.25          | 6.05           |
| <i>Dianajonesia tridens</i>                 | 13                           | 334             | 30         | 1 - 168         | 25.69          | 7.77           |
| <i>O. Angulata</i>                          | 35                           | 3924            | 81         | 1 - 315         | 112.11         | 91.26          |
| <i>Chelonibia patula</i>                    | 21                           | 66              | 49         | 1 - 9           | 3.14           | 1.53           |
| Larva cyprid<br>( <i>Octolasmislarvae</i> ) | 25                           | 239             | 58         | 1 - 43          | 9.56           | 5.56           |
| <b>Total</b>                                |                              | <b>4823</b>     |            |                 |                |                |

Appendix 5 Infection patterns of ectoparasites in blue swimming crabs (*P. pelagicus*) in Muara Gembong  
n : 50, \* ectosymbiont

| Parasites                                   | Infected <i>P. pelagicus</i> | Parasite amount | Prevalence (%) | Intensity range | Mean intensity | Mean abundance |
|---|------------------------------|-----------------|----------------|-----------------|----------------|----------------|
| <i>Octolasmis warwicki</i>                  | 23                           | 48              | 46             | 1 - 5           | 2.09           | 0.96           |
| <i>D. tridens</i>                           | 11                           | 28              | 22             | 1 - 6           | 2.55           | 0.56           |
| <i>Oc. angulata</i>                         | 31                           | 511             | 62             | 1 - 30          | 16.48          | 10.22          |
| <i>C. testudinaria</i> *                    | 18                           | 48              | 36             | 1 - 16          | 2.67           | 0.96           |
| Larva cyprid ( <i>Octolasmis</i><br>larvae) | 12                           | 84              | 24             | 1 - 38          | 7              | 1.68           |
| <b>Total</b>                                |                              | <b>719</b>      |                |                 |                |                |

Appendix 6 Infection patterns of ectoparasites in blue swimming crabs (*P. pelagicus*) in Labuhan Maringgai  
n: 50, ectosymbiont

| Parasites                | Infected<br><i>P. pelagicus</i> | Parasite<br>amount | Prevalence<br>(%) | Intensity<br>range | Mean<br>intensity | Mean<br>abundance |
|--------------------------|---------------------------------|--------------------|-------------------|--------------------|-------------------|-------------------|
| <i>Oc. warwicki</i>      | 1                               | 4                  | 2                 | 4                  | 4                 | 0.08              |
| <i>D. tridens</i>        | 1                               | 5                  | 2                 | 5                  | 5                 | 0.1               |
| <i>Oc. angulata</i>      | 3                               | 36                 | 6                 | 1 - 33             | 12                | 0.72              |
| <i>C. testudinaria</i> * | 44                              | 407                | 88                | 1 - 62             | 9.25              | 8.14              |
| <i>Thompsonia</i> sp.    | 24                              | 20540              | 48                | 137 - 2740         | 855.83            | 410.8             |
| <i>Os. puelchana</i>     | 26                              | 438                | 52                | 1 - 116            | 16.85             | 8.76              |
| <b>Total</b>             |                                 | <b>21430</b>       |                   |                    |                   |                   |