

SUPPLEMENTAL INFORMATION 2

Pathogenicity and infection cycle of *Vibrio owensii* in larviculture of ornate spiny lobster (*Panulirus ornatus*)

Evan F. Goulden^{1,2}, Michael R. Hall¹, David G. Bourne¹, Lily L. Pereg², and Lone Høj^{1*}

¹ Australian Institute of Marine Science, Townsville, Queensland, Australia, 4810.

² Research Centre for Molecular Biology, School of Science and Technology, University of New
England, Armidale, New South Wales, Australia, 2351.

SUPPLEMENTAL RESULTS

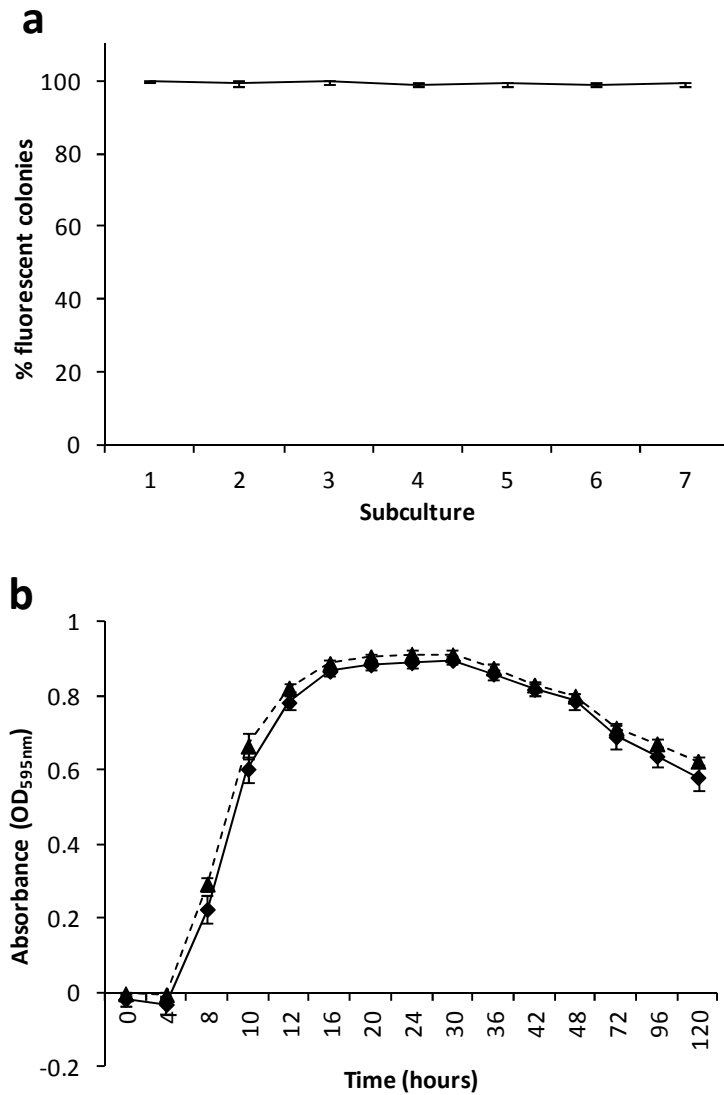


FIG. S1. Stability of *gfp* expression and effects of transconjugation on growth of *V. owensii* DY05. (a) Expression of *gfp* by DY05[*gfp*] following continuous subculture for 7 days in nonselective medium (MB). (b) Microgrowth profiles of wild type *V. owensii* DY05 (▲) and DY05[*gfp*] (◆) over 120 h. Shown are means \pm SD.

TABLE S1. Phylogenetic identity of isolates recovered from stage 3 *P. ornatus* phyllosoma and *Artemia* following vectored challenge

| Isolate | Treatment and time (h) of sampling | Source | Gene | Nearest taxonomic relative (accession number) | Sequence identity (%) |
|---------|------------------------------------|---------------------|--|--|--|
| A01 | <i>V. owensii</i> DY05 t = 2 | Live <i>Artemia</i> | 16S rRNA <i>topA</i> <i>mreB</i> | <i>V. owensii</i> DY05 (GU018180) <i>V. owensii</i> DY05(GU111255) <i>V. owensii</i> DY05 (GU111259) | 1420/1421 (99%) ^a 625/625 (100%) 860/860 (100%) |
| A06 | Control t=0 | Live phyllosoma | 16S rRNA | <i>V. parahaemolyticus</i> (GU726844) | 1400/1402 (99%) |
| A07 | Control t=0 | Live phyllosoma | 16S rRNA | <i>V. harveyi</i> (DQ146937) | 1414/1414 (100%) |
| A08 | Control t=0 | Live phyllosoma | 16S rRNA | <i>V. neptunus</i> (NR025476) | 1408/1422 (99%) |
| A09 | Control t=0 | Live phyllosoma | 16S rRNA | <i>V. parahaemolyticus</i> (EU660326) | 1427/1430 (99%) |
| A10 | Control t=0 | Live phyllosoma | 16S rRNA | <i>V. harveyi</i> (DQ146937) | 1422/1423 (99%) |
| A39 | Control t =48 | Dead phyllosoma | 16S rRNA | <i>V. neptunus</i> (NR025476) | 1414/1427 (99%) |
| A40 | Control t =48 | Dead phyllosoma | 16S rRNA | <i>V. harveyi</i> (AM422800) | 1414/1418 (99%) |
| A41 | Control t =48 | Dead phyllosoma | 16S rRNA | <i>V. neptunus</i> (NR025476) | 1406/1420 (99%) |
| A42 | Control t =48 | Dead phyllosoma | 16S rRNA | <i>V. neptunus</i> (NR025476) | 1404/1418 (99%) |
| A43 | Control t =48 | Dead phyllosoma | 16S rRNA | <i>V. parahaemolyticus</i> (EU660326) | 1422/1424 (99%) |
| A44 | Control t =48 | Dead phyllosoma | 16S rRNA | <i>V. neptunus</i> (NR025476) | 1409/1424 (99%) |
| A37 | <i>V. owensii</i> DY05 t = 48 | Dead phyllosoma | 16S rRNA | <i>V. neptunus</i> (NR025476) | 1395/1408 (99%) |
| A45 | <i>V. owensii</i> DY05 t = 48 | Dead phyllosoma | 16S rRNA <i>topA</i> <i>mreB</i> | <i>V. owensii</i> DY05 (GU018180) <i>V. owensii</i> DY05(GU111255) <i>V. owensii</i> DY05 (GU111259) | 1420/1421 (99%) ^a 625/625 (100%) 860/860 (100%) |
| A46 | <i>V. owensii</i> DY05 t = 48 | Dead phyllosoma | 16S rRNA <i>topA</i> <i>mreB</i> | <i>V. owensii</i> DY05 (GU018180) <i>V. owensii</i> DY05(GU111255) <i>V. owensii</i> DY05 (GU111259) | 1420/1421 (99%) ^a 625/625 (100%) 860/860 (100%) |
| A47 | <i>V. owensii</i> DY05 t = 48 | Dead phyllosoma | 16S rRNA <i>topA</i> <i>mreB</i> | <i>V. owensii</i> DY05 (GU018180) <i>V. owensii</i> DY05(GU111255) <i>V. owensii</i> DY05 (GU111259) | 1420/1421 (99%) ^a 625/625 (100%) 860/860 (100%) |
| A49 | <i>V. owensii</i> DY05 t = 48 | Dead phyllosoma | 16S rRNA <i>topA</i> <i>mreB</i> | <i>V. owensii</i> DY05 (GU018180) <i>V. owensii</i> DY05(GU111255) <i>V. owensii</i> DY05 (GU111259) | 1420/1421 (99%) ^a 625/625 (100%) 860/860 (100%) |
| A50 | <i>V. owensii</i> DY05 t = 48 | Dead phyllosoma | 16S rRNA <i>topA</i> <i>mreB</i> | <i>V. owensii</i> DY05 (GU018180) <i>V. owensii</i> DY05(GU111255) <i>V. owensii</i> DY05 (GU111259) | 1390/1391 (99%) ^a 625/625 (100%) 860/860 (100%) |

^a One bp mismatch due to an uncertain nucleotide position ‘n’ in the BLAST database sequence.