The following supplement accompanies the article

Temperature alters algicidal activity of DNA and RNA viruses infecting *Chaetoceros tenuissimus*

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Supplement. The following information supports the 'Materials and methods' section of the main text for detecting viral genome replication and accumulation in the host cells, in experiments of 'Effects of water temperatures on viral proliferation' and 'Semi-continuous culture' subsections. These results are shown in Figs. S1 & S2, respectively

Supplementary Method

Detection of viral genome replication and accumulation in host cells. Southern dot-blot and northern blot analyses were conducted to evaluate viral genome replication and accumulation, respectively, in the host cells when CtenDNAV and CtenRNAV were added in the growth experiments and semi-continuous culture experiments. Based on the viral genome sequence, digoxigenin (DIG)-labelled RNA probes, specific for either the viral or the complementary strand, were transcribed from the constructed plasmid with T7 RNA polymerase or T3 RNA polymerase, respectively, according to the manufacturer's protocols (Roche). The probes for CtenDNAV were designed using the ssDNA region of the viral genome (Tomaru et al. 2011b), and probes for CtenRNAV were designed using the capsid protein region. The signals were detected with a luminescence image analyser (LAS-3000 Mini; Fuji Photo Film).

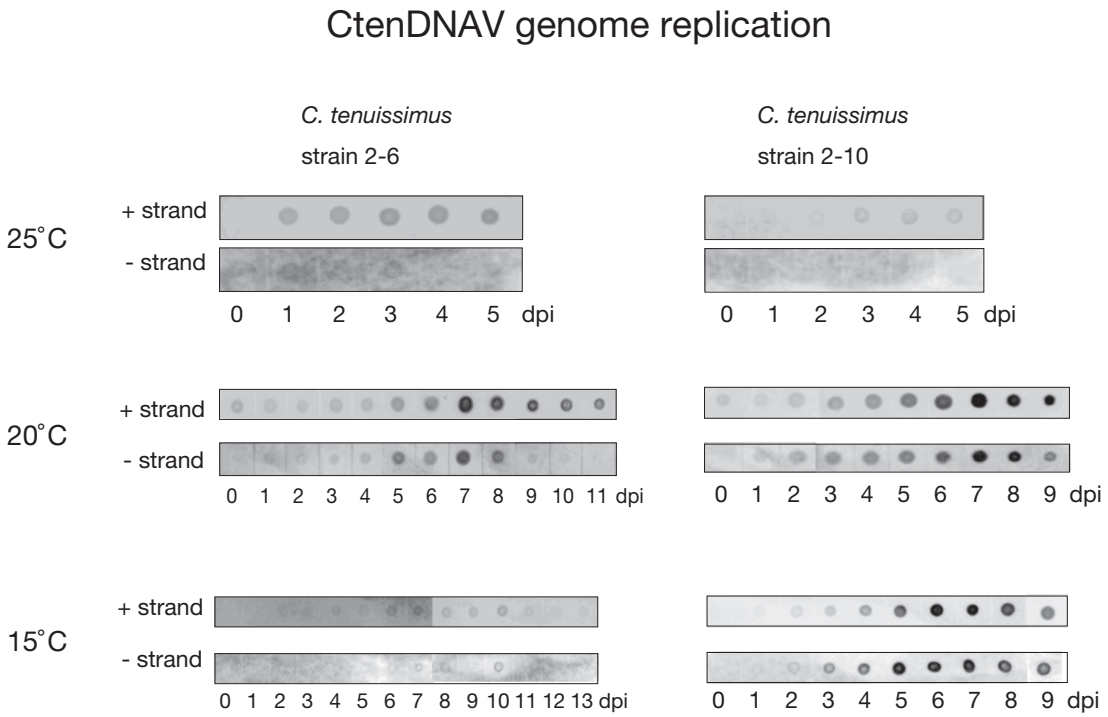

Fig. S1. Accumulation of genomic (+) and complementary (-) CtenDNAV DNA in *C. tenuissimus* cells inoculated with CtenDNAV (used in Fig. 3). DNA was extracted from *C. tenuissimus* cells and directly blotted onto membranes. Then, the membranes were probed with strand-specific DIG-labelled RNA probes.

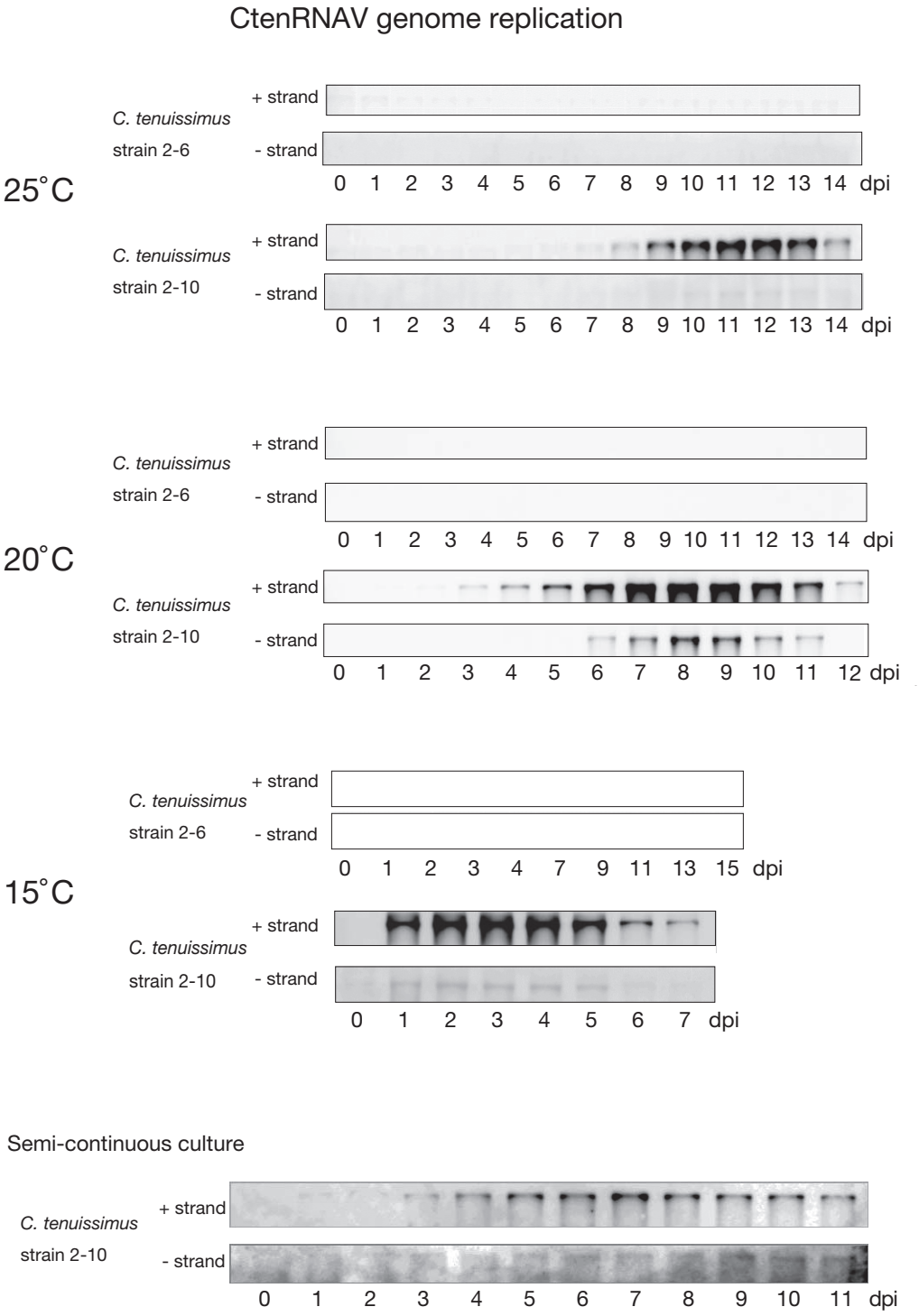

Fig. S2. Accumulation of genomic (+) and complementary (-) CtenRNAV RNA in *C. tenuissimus* cells inoculated with CtenRNAV (used in Figs. 4 and 6A). Total RNA was extracted from *C. tenuissimus* cells, separated by gel electrophoresis, and blotted onto membranes. Then, the membranes were probed with strand-specific DIG-labelled RNA probes.