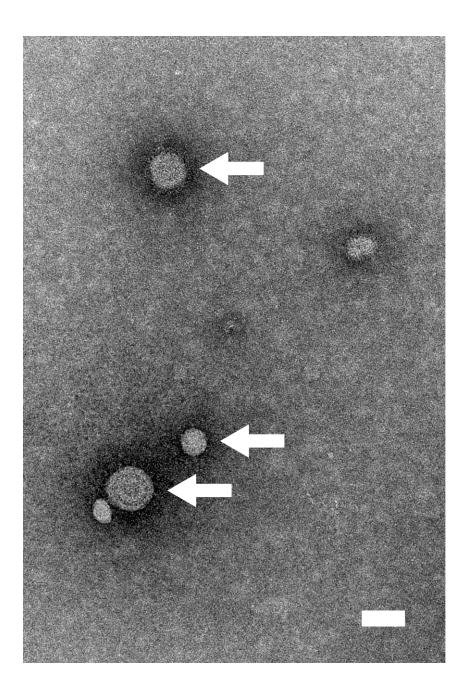


## Figure S1

Geochemical characteristics of the off-Tohoku sediment core (station N-500 site; Nomaki et al., 2016a). (A) Dissolved oxygen concentration ( $\mu$ M). (B) Total organic carbon content (weight % of TOC) and total nitrogen content (wt% of TN). The TOC/TN ratios were constant (7.4–7.6) throughout the core depth. (C) Pore-water nitrate, nitrite, and ammonium and (d) phosphate concentrations ( $\mu$ M). Filled and open symbols represent profiles from replicate cores.



## Figure S2

Transmission electron micrograph of non-tailed virus-like particles (arrows) observed in this study. The bar indicates 50 nm.