Supporting Information for

Reoxygenation of the Hypoxia in the East China Sea: a Ventilation Opening for Marine Life

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Introduction

This supporting information provides the supplemental figures, and reference cited in the caption.



Fig. S1: Contours of temperature (panels a, c, e, and g) and salinity (panels b, d, f, and h) in the bottom water column or at 100 m if the water column depth was >100 in the East China Sea in the summer of 2003 and 2014. For reference, contour lines of 20°C and 34.3 are in white bold for temperature and salinity, respectively.



Fig. S2: Images of 2 days' average of sea surface temperature (SST) of the optimally interpolated satellite microwave and infrared (MW_IR OI

SST) data during July 30 to September 7, 2004, with St. 19 marked with ☆. Color code for SST is given for reference.



Fig. S3: (a) Track of Typhoon Nakri, with a wind speed of 17.2–32.6 m s⁻¹, during July 29 to August 3, 2014. This figure is modified from the website
http://rdc28.cwb.gov.tw/TDB/data/Indiv/2014/NAKRI/OBS/Track/2014.NAKRI.Trac
k.png?1548122141549. The blue rectangle (121.875–123.75°N; 29.523–31.428°E) is the observed wind field calculated for panel b. (b) The daily wind speed off the Changjiang River estuary during July 15 to September 16, 2014. The blue and grey shaded areas indicate the Typhoon Nakri's period and sampling time at St. 19, respectively.



Fig. S4: Temperature vs. salinity (T–S) diagram in different sampling periods in this study. The same symbol indicates the similar water mass, especially for the bottom water, for stations as shown in the inserted sampling maps in each panel. For guidance, the symbol for St. 19 (+) is different from other stations where vertical and horizontal dashed lines indicate the water property of St. 19 in August 2014. The yellow bars indicate the typical T–S of the Kuroshio waters between 50-150 m of water column (Chen et al., 2017).

Chen, C.-C., Jan, S., Kuo, T. H., and Li, S. Y. (2017). Nutrient flux and transport by the Kuroshio east of Taiwan. *J. Mar. Syst.* 167, 43-54. doi: 10.1016/j.jmarsys.2016.11.004