Supplementary Information for

Midwinter Breakdown of ENSO Climate Impacts in East Asia

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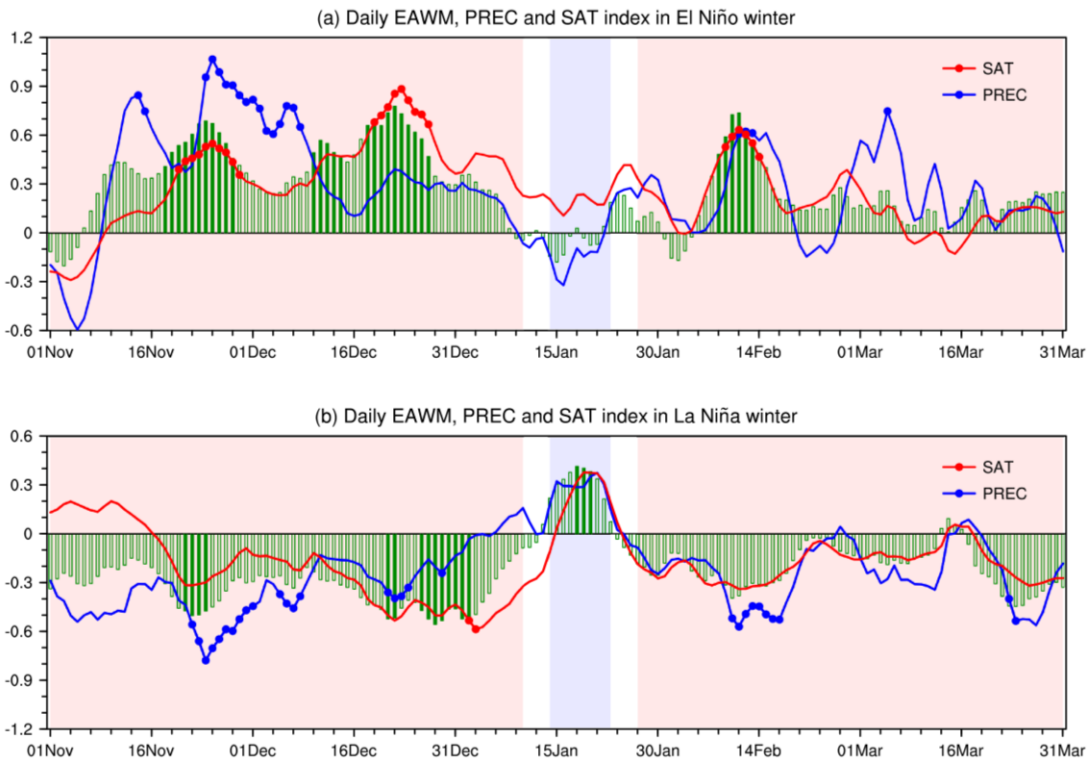
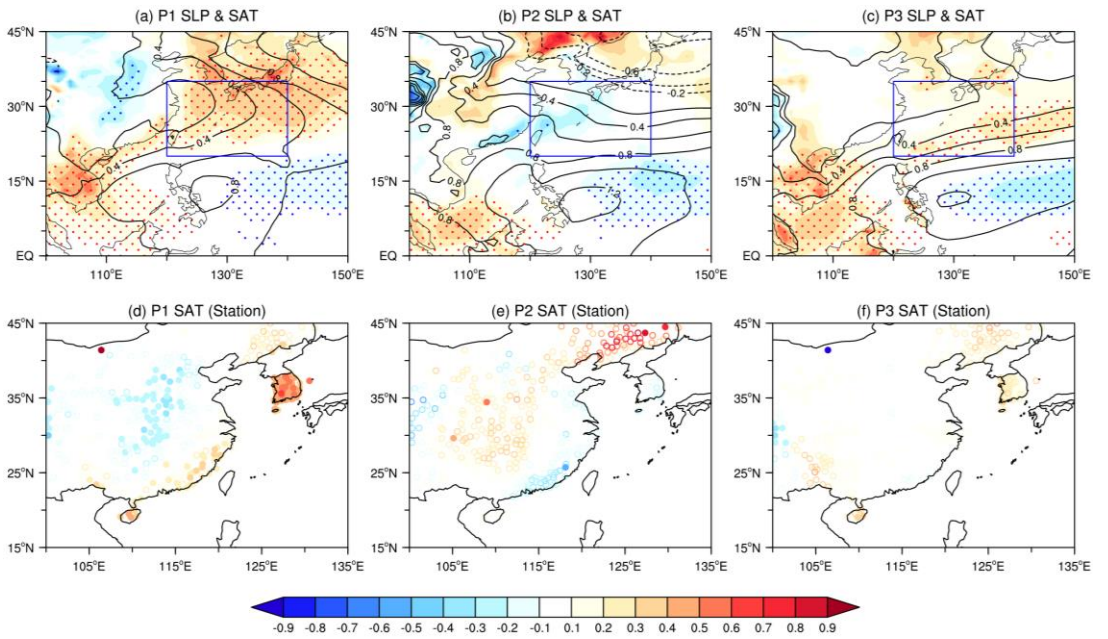
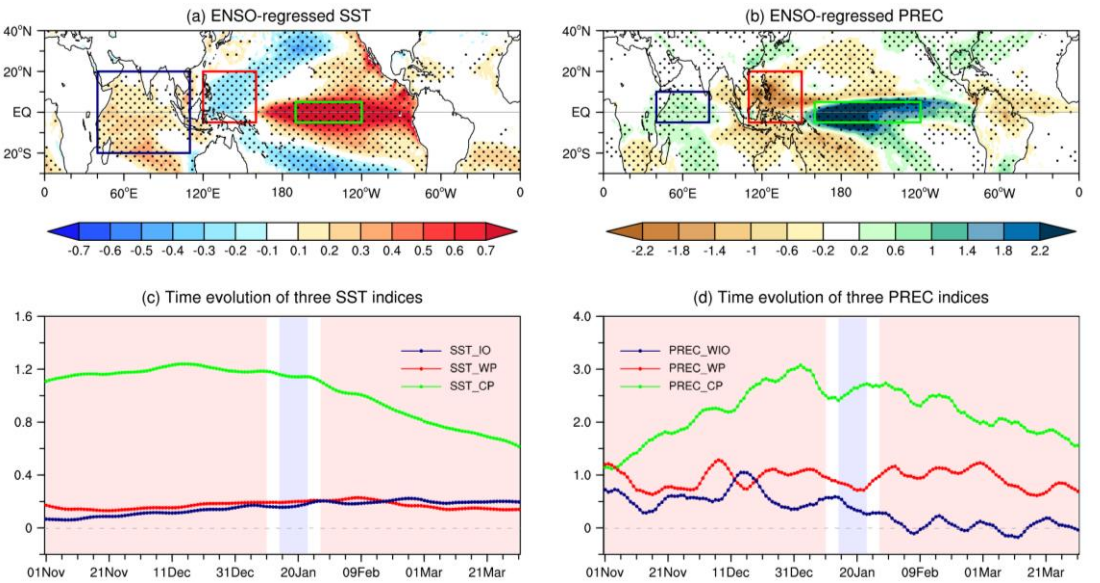


Supplementary Fig. 1. Composite anomalous daily EAWM (bar in m/s), East Asian precipitation (blue curve in mm/day), and East Asian SAT (red curve in K) indices during the (a) El Niño winters and (b) La Niña winters. Solid bars, and the dots in the curves denote the composite indices are significant at the 90% confidence level.



Supplementary Fig. 2. Regression coefficients of the SLP (contours in hPa) and SAT anomalies (shadings in K) with respect to the Niño-3.4 index for the (a) P1, (b) P2, and (c) P3. The dots denote the SAT anomaly is significant at the 90% confidence level. The blue box denotes the region used to define the SAT index. Regression coefficients of the stational SAT anomalies (shadings in K) with respect to the Niño-3.4 index for the (d) P1, (e) P2, and (f) P3. The statistically significant and insignificant SAT anomalies at the 90% confidence level are respectively marked with solid and hollow circles.



Supplementary Fig. 3. Regression coefficients of the tropical winter seasonal-mean (NDJFM) (a) SST (shadings in K) and (b) precipitation anomalies (shadings in mm/day) with respect to the Niño-3.4 index. The navy, red and green boxes in (a) mark the domains used to define the SST_IO, SST_WP and SST_CP indices, respectively. The navy, red and green boxes in (b) mark the domains used to define the Pr_WIO, Pr_WP and Pr_CP indices, respectively. The time evolution of the regressed (c) SST and (d) precipitation indices with respect to the Niño-3.4 index from November to March. Note that the signs of the SST_WP and Pr_WP indices have been reversed to present a better comparison with other indices. Dots are displayed when the anomalies are significant at the 90% confidence level. The translucence red, blue and red polygons mark the periods defined as P1, P2, and P3.