

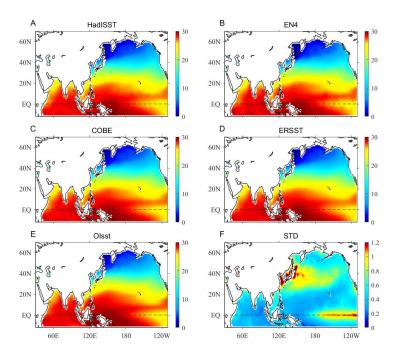
## Supplementary Material

## Simulated and Projected SST of Asian Marginal Seas Based on CMIP6 models

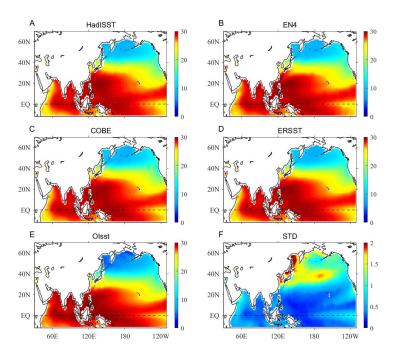
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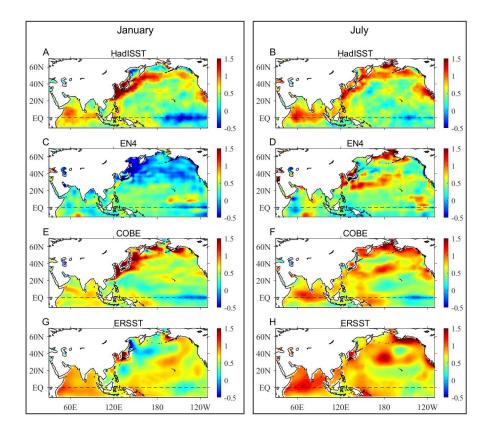
**1** Supplementary Figures



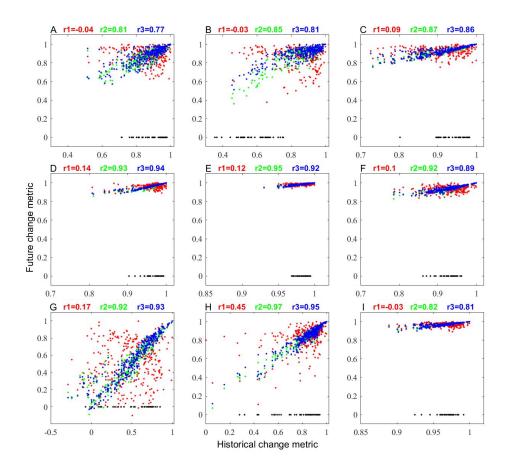
**Supplementary Figure 1.** Observed climatological SST in the observations from 1981 to 2019 in January. A. HadISST; B. EN4; C. COBE; D. ERSST; E. OIsst; F. standard deviation of the observed climatological SST in observations.



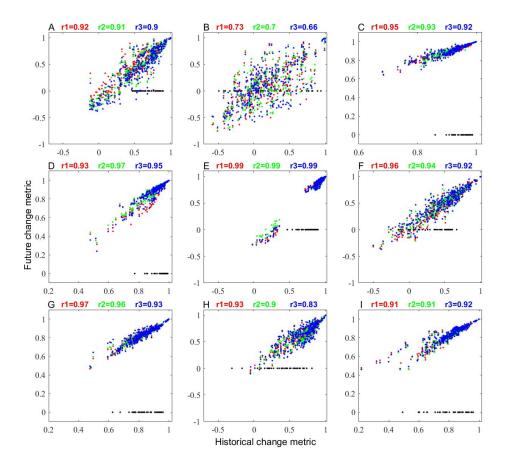
Supplementary Figure 2. The same as Figure A1 but in July.



**Supplementary Figure 3.** Linear trend in the SST from 1900 to 2019 in January (left column) and July (right column) (Unit: °C/century). A–B. HadISST; C–D. EN4; E–F. COBE; G–H. ERSST.



**Supplementary Figure 4.** Scatter plots for the present and future change metrics in AMS in January. (A. Bering Sea; B. Sea of Okhotsk; C. Japan/East Sea (JES); D. East China Seas (ECSs); E. Philippine Sea; F. South China Sea (SCS); G. Indonesian seas; H. Bay of Bengal; I. Arabian Sea). The red, green, and blue dots indicate the correlation coefficients of 325 SSP126, 325 SSP245, and 351SSP585 models pairs in both history and future, respectively. The black dots indicate the correlation coefficients between model historical simulation and observation. The r1, r2, and r3 are the correlation between history and future change metric.



Supplementary Figure 5. The same as Figure A3 but in July.