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Discussions

# *Interactive comment on* "The long-term spatio-temporal variability of sea surface temperature in the Northwest Pacific and the Near China Sea" *by* Zhiyuan Wu et al.

**Anonymous Referee #1**

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The manuscript "The long-term spatio-temporal variability of sea surface temperature in the Northwest Pacific and the Near China Sea" by Zhiyuan Wu et al., Presents the variability of the sea surface temperature (SST) in Northwest Pacific the last 164 years, on seasonal, annual and interannual scales based on monthly data sets. The analysis is well presented, and the results are interesting in terms of global warming. The correlations found are mostly expected, especially between the SST and the T2, since the temperature at 2 m and SST are strongly linked. The changes in the SST and the SSTA are closely related to El Niño 3.4. The important part of this study is the increasing SST linear trend of 0.033 °C/10 yr and especially of 0.306 °C/10 yr in the last ten years, which shows an "acceleration" in the temperature increase in the



Northwest Pacific.

On the other hand, it is interesting the change that the authors find in the SST around 1998. Although they do not propose an explanation for this change, it would be excellent if they tried to give some comment or proposed a hypothesis. A minor issue is in Figure 12, placing a, and b on the figures to be consistent with the figure caption. The manuscript deserves to be accepted.

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