

In their work, Xu et al. develop two new tree-rings isotopic chronologies of $\delta^{18}\text{O}$ from Northern India, and, combined with three other $\delta^{18}\text{O}$ chronologies, propose a multi-decadal regional reconstruction of the Indian summer monsoon. The regional record is further investigated using correlation and spectral analyses to document: 1) the drivers of Indian summer monsoon variability, and 2) the long-term trends of Indian summer monsoon intensity.

The new Data and this regional reconstruction are valuable to document a key hydroclimate component of the region, which lacks high resolution and long-term proxy records.

The methodology used in this paper as well as the results are robust. The data analyses, however, would benefit from further in depth exploration of each chronology signal. The discussion needs more regional scope but this can be improved if more data analyses are carried.

General Comments

- The authors present only correlations between the five $\delta^{18}\text{O}$ chronologies. How are the correlations for high and low frequency between the 5 chronologies?
- Climate correlations for each chronology $\delta^{18}\text{O}$ are summarized in the text however a figure of correlation between each chronology and the main climate factor (precipitation and/or PDSI) should be presented to assess the climate signal in each chronology before creating the composite regional signal.
- The composite signal (average of 5 centered $\delta^{18}\text{O}$ chronologies) should be presented with a standard deviation or an uncertainty term in order to see if the uncertainty changed over time. This will be important to discuss the relationship between the composite regional signal and its relation with Indian summer monsoon indices for the last ~ 200 years.
- The $\delta^{18}\text{O}$ signal is often described from a theoretical perspective. Could the authors provide more evidence of the $\delta^{18}\text{O}$ signal in these particular chronologies? Comparison with RH or source water isotopes? Or using process based evaluation by means of $\delta^{18}\text{O}$ forward modelling (Eg. Evans 2007).
- Analyses of observations would enhance the strength of the tree rings data: trends of rainfall for the region, as well as the various indices discussed in the paper. Additionally, $\delta^{18}\text{O}$ tree-rings and rainfall amount over the observations period should be plotted to strengthen the interpretation of the amount effect described in the results-discussion sections. This can be done for each site or at regional scale.
- In Page 9 paragraph 1 (~ line 5): Is the RH threshold 1%?
- In Page 9 paragraph 1 (~ line 5): further discussion is required when assessing how the source $\delta^{18}\text{O}$ is integrated differently between tree-rings and speleothem proxies.

- Page 10 from line 10 to 25: the text needs substantial editing, there are lot of repetitions and the discussion is not clear. Often the authors start describing the implication of their record and its comparison with regional records without an in-depth discussion.
- Page 9 starting line ~ 20. The discussion here is interesting, however, needs some clarification and editing.

For the clarification: 1) the authors report a decreasing $\delta^{18}\text{O}$ trend from 1743-1820. How many chronologies are included in this part of the record? According to Table 1 and Figure 4, only 2 chronologies extend back to 1743. Authors should use caution when making regional trend interpretations

2) an increasing $\delta^{18}\text{O}$ trend from 1820 to 2000 is observed in the $\delta^{18}\text{O}$ tree-rings interpreted as an increase in the Indian monsoon intensity, also observed from other regional proxies. Is this trend also observed when considering the chronologies individually? What are the statistics for this trend?

- Page 10, line 20. The discussion of factors (for instance aerosols) other than the decreasing land-ocean thermal contrast and their role in the decreasing Indian Monsoon intensity needs to be more detailed. What is the land-ocean thermal contrast resolution, interannual? Decadal? From Figure 11 the proxy records for ocean and land temperature do not seem to have the same temporal resolution.

- when assessing the ENSO-and H5 regional $\delta^{18}\text{O}$ correlations, a 31-year window is too large (ENSO is 2-7 years). It would be helpful to investigate ENSO- and Tree-rings $\delta^{18}\text{O}$ correlation for individual chronologies to test whether the decorrelation is observed for all chronologies which reflect sites under slightly different precipitation regime and Indian summer monsoon influence (based on Fig 1).

Specific comments

- In Results and Discussion, section 3.1. The standard deviation of individual tree-ring cores can be added next to the mean.

- In Table 1 the mean $\delta^{18}\text{O}$ for each chronology should have a unit (‰)

- In Fig 1 and Table 2 the chronologies from previous studies have a different name. Bhutan in -Table 2 and Wache in Fig 1.

- In Fig 2 the triangle and circle symbols have no legend.

- In Fig 3 the triangle and circle symbols legend is too big. This can be reduced to only the symbols without the line (same should be applied to Fig 2).

- In Fig 4, the sample depth (number) should be added in a graph below the composite time-series since the number of averaged trees over time is not the same (prior to 1740 and after 2000).

- In Fig 5, add the location of all the sites to help visualize the strength of the field correlations.

- In Fig 8, add the location of the 18O chronologies for spatial reference of the SST correlations.

-Page 8 line 1, a word or punctuation is missing after the parenthesis (eastern-Pacific el Nino).