Thanks for your advices. We have taken full consideration of your suggestions and made the following answers:

1. As regard to the question on the number of fossil and modern specimens, we have made the following answers:

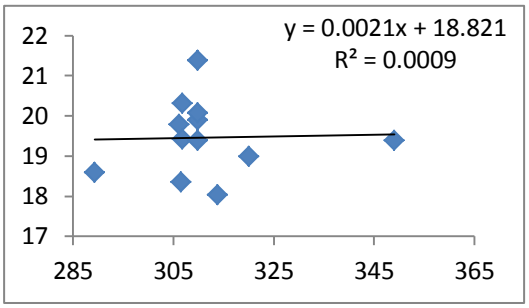
(1) It is hard to add more fossil specimens, because there is no more *Nageia* fossil was found from the Maoming Basin.

(2) We had tried our best and got more modern materials, so more data were added into the manuscript as suggested.

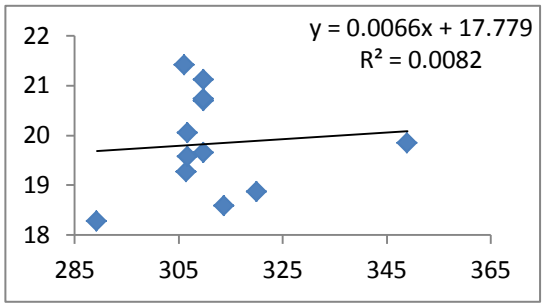
2. Is there any evidence of changing pore length in fossil *Nageia*, compared to modern plants?

The average pore lengths in the adaxial and abaxial sides of fossil *Nageia* (17.6667 μm and 17.33354 μm, respectively) are a little smaller than those in modern leaves (19.46127 μm and 19.83534 μm, respectively).

We also compared pore lengths from both the adaxial and abaxial sides to the atmospheric CO_2 concentrations. The result is that there is no relationship between them (R^2=0.0009 and 0.0082, respectively).



Adaxial



Abaxial

3. …This means that for higher pCO_2 levels, it can become more difficult to evaluate the stomatal density response, and to reliably calculate pCO_2 from stomatal data. Particularly for higher CO_2, a higher amount of data is necessary…

(1) We are prefer to consider that the relationships between SDs (or SIs) and CO_2 concentrations are linear which is used by many scientists (such as Kouwenberg et al., 2003, Bai et al., 2015 and Hu et al., 2015)

(2) After added more modern data, the highest CO_2 concentration is 348.98 ppmv, it is closer to the reconstructed results in our study.

4. Specific comments

p. 2623, I.6: "However, the SDs and Sis data of the abaxial sides, summarized in Table 3, give significantly higher values (53.22-82.71 in SDs and 3.13-4.66 in SIs) than those from the adaxial sides." Did the authors check the differences in stomatal

density between both leaf sides for statistical significance?

Yes, we checked the differences in stomatal density between both leaf sides and found that they are significantly different in average values and stated in the manuscript.

5. Minor comments

p. 2623, I. 19: "…and Royer (2001) considered both the SD and SI vary with economical and 20 biological factors such as irradiance, temperature, and water supply…" Probably, the authors mean "ecological factors".

Changed as suggested.

Figure 3. Correlation between SD and SI versus CO_2 concentration for modern *Nageia motleyi*. (a) Trends of SD with CO_2 concentration for the adaxial surface. (b) Trends of SD with CO_2 concentration for the abaxial surface. (c) Trends of SI with CO_2 concentration for the adaxial surface. (d) Trends of SI with CO_2 concentration for the abaxial surface. (e) Trends of SD with CO_2 concentration for the combined data of both the leaf surfaces. (f) Trends of SI with CO_2 concentration for the combined data of both the leaf surfaces.

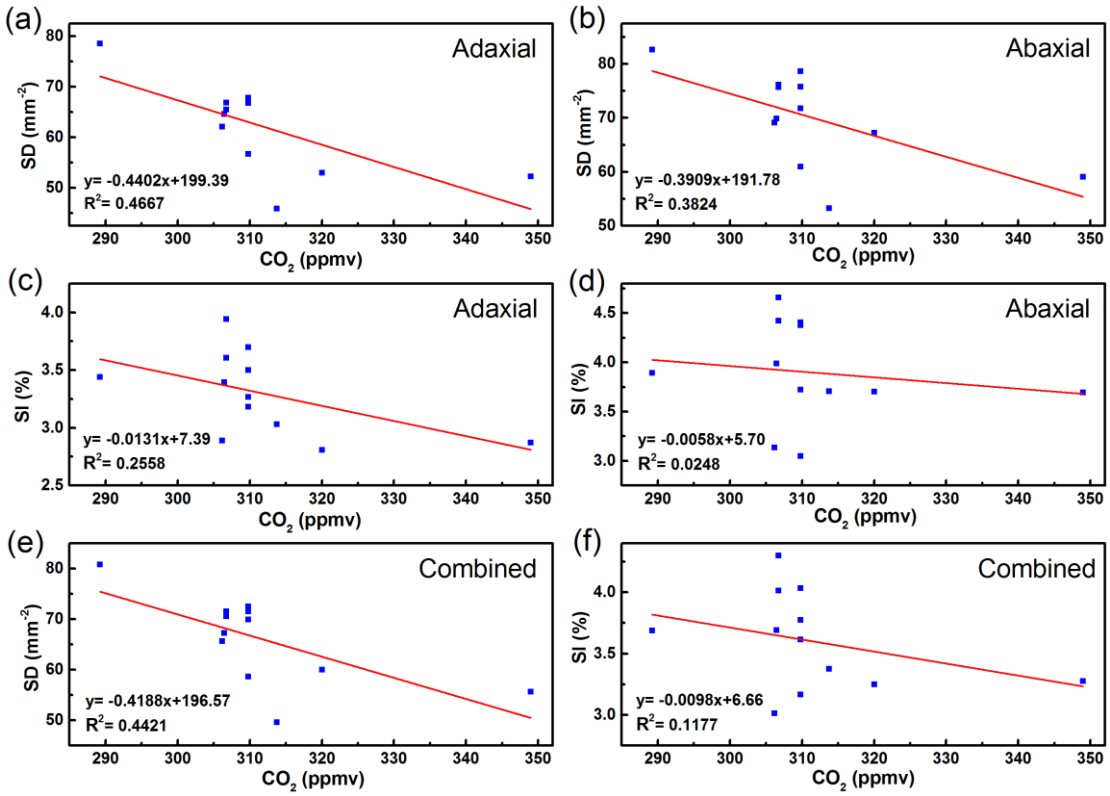


Figure 4. Correlation between SNL, SDL and TSDL versus CO_2 concentration for modern *Nageia motleyi*. (a) Trends of SNL with CO_2 concentration for the adaxial surface. (b) Trends of SDL with CO_2 concentration for the adaxial surface. (c) Trends of TSDL with CO_2 concentration for the adaxial surface.