

Response

Dear Dr. Gregor Leckebusch,

We are deeply grateful to you and the reviewers for the valuable comments and suggestions, which helped us improve the manuscript greatly. Below, we explained how the comments and suggestions are addressed point-by-point, and make notes of the revisions we have made in the updated manuscript.

Thanks very much for your handling of our submission again, and we are looking forward to hearing from you soon.

Sincerely yours,

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Response to editor (Gregor C. Leckebusch)

[General Comments] I recommend minor revisions and suggest you to add a specific section to the manuscript explaining in detail how the manuscript addresses one core aim of our journal: to the study of the evolution of natural systems towards extreme conditions, and the detection and monitoring of precursors of the evolution. Especially, I would recommend you clarify how your submission separates from a localised case studies with no broader implications. The latter separation being a necessary condition for a publication in NHESS.

Response: Thank you very much for your kind suggestion. We apologize for missing your suggestion in the previous revision. In response to the comment we have added a detailed description of the core aim of the NHESS journal and special words are added to explain why we focused on a widespread extreme rainfall event, rather than a localized case in the *Introduction* section.

During the period from 29 July to 1 August 2023, North China experienced devastating rainfall. Despite the rainfall in low intensity, it was long-lasting and widespread, resulting in large accumulated rainfall. Overall, the average accumulated rainfall over North China (including Beijing, Tianjin, and Hebei province) was 175 mm, which was approximately 1/3 of the average annual precipitation in this region. There were 3 rainfall cores over 700 mm, with the maximum one over 1000 mm. Flooding from this event affected 1.3 million people, bringing severe human casualties and economic losses. The sustained heavy rainfall over Beijing left 33 people dead and 18 missing persons. Compared to a localized case, this rainfall event was characterized by stronger accumulated rainfall, longer duration, and more severe human casualties and economic losses. Although operational forecasts gave a reasonable spatial distribution of precipitation at that time, the precipitation intensity was underestimated significantly. Therefore, the topic, aiming at the evolution of natural systems towards extreme rainfall, is in the scope of NHESS.

Response to Referee #1

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48 manuscript.