

***Interactive comment on* “Floodplain sediment from a 30-year-recurrence flood in 2005 of the Ping River in northern Thailand” by S. H. Wood and A. D. Ziegler**

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Authors response to referees Based on reviews by 2 referees and gathering of more precipitation and suspended-sediment-concentration data, we have rewritten and revised much of the paper. All of the comments were taken into consideration as the manuscript and figures were revised.

Response to anonymous referee#2 General comment: Referee ask us to clarify methods: Section 4 (Measurements) rewritten to clarify methods. Also, section 5.4 clarifies calculations.

Points to improve paper: Referee noted we had mentioned bioturbation of sediments

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in the abstract, but did not analyze or discuss this topic 1. All discussion of bioturbation removed from paper. The subject is not a focus of the paper, and we have no data or good references on bioturbation of alluvial silt deposits. Only a description of the tiny burrows is retained at the end of revised section 5.3.

2. Referee asked that locations of measurements be shown: Location of all measurement points used to isopach thickness (Fig. 11) is shown in Fig. 9.

3. Referee asks we clarify measurements: Section 4 rewritten to indicate density and grain-size measurements, and method of sediment concentration determination. We have also added more data to Fig. 10, showing depth-integrated sampling of suspended-sediment we have since obtained from the Royal Irrigation Department.

4. Referee questioned numbers used for wet density and water content: Calculations using average density and water content are revised, using averages and standard deviation. A more complete explanation is given in revised section 5.4

5. Both referees questioned our hypothetical calculation of flow of floodwater through a tributary channel to the floodplain. Because we do not have any information on flow velocity, this calculation using assumed velocities has been deleted.

6. Referee pointed out that discussion and results are disordered. Nature and extent of flooding; moved from discussion (6) to the results (5) section 5.5, because it contains mostly observations of the study site. Revised Section 5.5 is concluded with a statement on the extent of flooding; as it concerns sedimentation in the study area.

7. Referees pointed out inconsistent area used in calculation. Estimated flooded area of 1 km² referred to the photograph (Fig. 7) and not the area of measurement and isopached sediment thickness. To avoid confusion we have removed reference to 1 km² to avoid confusion, and use only the 0.324-km² area where we know the sediment thickness.

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Minor Points:

1. Flood dates: We have checked all references to flood dates, and now refer only to the September 29-October 2 flood.
2. Reference to Figs. 2-8 corrected to just Fig.
3. References to panels in Fig. 13 were incorrect, and have been corrected on Figure and text (Section 5.3).

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