We thank the reviewer for her thorough assessment of the manuscript and for the constructive suggestions. These comments have helped us to improve the clarity, consistency, and completeness of the work. Below, we provide detailed responses to each point and indicate the corresponding changes made in the manuscript.

Q1. We have replaced the sub-sub-type name "erosive forms" with "erosional scars" to be more specific. In the revised text and Table 4, this category now explicitly refers to geomorphological features resulting from flood-induced erosion, such as sigmoid longitudinal profiles and bank undercuttings. We have also included references (e.g., Bodoque et al., 2011; Jarrett and Tomlinson, 2000) so that readers can consult these works for a more detailed explanation of each type of evidence mentioned.

Q2. Regarding non-exceedance bounds (time intervals during which palaeostages have not exceeded the level needed to modify a terrace or high surface; Levish, 2002), we agree that it would be valuable to add a field for non-exceedance discharges (NEB). However, only a few studies of Spanish palaeoflood records mention possible non-exceedance evidence, such as the absence of depositional units or the preservation of old soils (indicating no erosion) on high terraces or surfaces.

With respect to perception thresholds, these were not separately coded because their value depends strongly on the depositional setting. In some contexts, the threshold can remain essentially fixed (e.g., sediment accumulation inside small caves), while in others it rises as successive deposits build up on flood benches. Nevertheless, perception thresholds can be derived from the database by combining the reported "minimum discharge" values (RQI field in the Hydrological Information Table) with the "other information" field (OE in the Record Basic Data Table), which describes the stratigraphic setting. In practice, the minimum discharge represented by a set of flood beds at a given site defines the perception threshold, and the duration of that threshold corresponds to the time span between the oldest and youngest flood ages at that site.

Levish, D.R., 2002. Paleohydrologic Bounds: Nonexceedance information for flood hazard assessment. In: House, P.K., Webb, R.H., Baker, V.R., Levish, D.R. (Eds.), *Ancient Floods, Modern Hazards: Principles and Applications of Paleoflood Hydrology*, Water Science and Application Series, vol. 5. American Geophysical Union, Washington, DC, pp. 175–190.

Q3. In the reviewed literature, explicit reporting of perception thresholds is generally limited to a few studies focused on flood frequency analysis. In contrast, studies primarily addressing flood–climate variability rarely include them. As noted in our previous reply to Q2, however, perception thresholds can still be inferred from several fields in the database. In practice, they can be extracted by combining the "minimum discharge" values with contextual information in "other hydrological interpretation data" and stratigraphic descriptions. Thus, while not explicitly coded as a separate field, the database contains the necessary information to reconstruct perception thresholds for use in flood-frequency analyses.

In the updated version of the manuscript, at the end of Section 3.3 Hydrological data, the following text has been added:

“Information on non-exceedance bounds and perception thresholds can be derived from the database even though the latter is not coded as a separate field. Non-exceedance bounds are only occasionally reported in the reviewed studies, usually inferred from the absence of depositional units or the preservation of stable soils on high terraces or surfaces. Although not systematically available, such evidence highlights intervals when flood stages did not exceed certain geomorphic thresholds, and it is documented in the Hydrological Information Table via the NEB field.

Perception thresholds, by contrast, can be reconstructed for most sites. These thresholds represent the minimum discharge or stage required to leave identifiable flood evidence at a depositional setting, and in some cases, they increase through time as sediment progressively builds up on flood benches (a self-rising component). In practice, perception thresholds can be obtained by combining the “minimum discharge” field with the contextual information provided in “other hydrological interpretation data” and the stratigraphic descriptions. Together, these entries allow users to identify the lowest flood magnitude preserved at a site, as well as the duration of the threshold, which corresponds to the time span between the oldest and youngest flood deposits at that location.”

Q4. In the updated version of the manuscript (Section 3.1, Temporal data), we have included a table summarising the general statistics of age-uncertainty values in the PaleoRiada dataset, highlighting their relationship with both, the age of the palaeoflood evidence and the dating methods used. The discussion emphasises that age uncertainty is strongly influenced by the antiquity of the records, with the highest values associated with fluvial sedimentological evidence—primarily because these records include some of the oldest events preserved in durable geological deposits. It is also clarified that no records have been excluded due to high uncertainty, to maintain the completeness of the dataset. Instead, users are encouraged to filter records according to the temporal precision required for their specific analyses.

Regarding the question, fluvial sedimentological records show the highest average age uncertainty (± 293.8 years), largely due to the antiquity of the oldest preserved events. Many were dated using luminescence, with uncertainties exceeding ± 3,000 years, reflecting the difficulty of constraining long-preserved deposits. Age uncertainty does not follow a consistent pattern across hydrographic basins; instead, it is shaped by past research locations, site accessibility, and preservation conditions. Thus, uncertainty is better explained by evidence type and age than by basin.

Q5. Our review of the sources shows that, out of more than 300 records compiled, only approximately 20% explicitly report the calibration curve applied. In the remaining cases, the information was either not applicable to the dating method employed or was not reported in the original references.

To account for this, we have incorporated the available information on calibration curves into the OT field of the Record Basic Data table. This enables users to identify those cases where the calibration framework is known and, if desired, to recalibrate radiocarbon ages with updated curves such as IntCal20.