

Comment:

9. L. 297-298, Figure 4: The selection of periods for the Welch's t-test (1800-1830, and 2000-2023) seems to be highly arbitrary. Rather, I would suggest comparing the pre- and post-1915 period for UVP (see identified breakpoints) and performing a standard trend analysis for DWC.

Changes made:

Thank you for this comment. We have followed the reviewer's suggestion and revised the periodization based on the SNHT results, distinguishing the periods 1800–1915 and 1916–2024. This revision had already been incorporated into the previous version of the manuscript. Please see lines 385 onward.

Comment:

Thank you for this comment. We have revised and reorganized the concluding sections accordingly. We now discuss more explicitly the distinction between the homogenization of the data series and the non-stationarity of the river channel. Because progressive channel-bed erosion precludes the use of a single stage–discharge relationship for the entire 200-year period, such relationships must be established separately for individual chronological periods. We have also clarified the potential applications of the dataset and identified uses for which it can be considered reliable. Please see lines 460 onward.

Comment:

In addition, these minor issues need to be fixed:

1. Please refer to the figures in the text using either "Fig." or "Figure" consistently.

Changes made: We addressed this issue by harmonizing the notation throughout the manuscript. The relevant changes are provided in lines 137, 155, 216, 371, 436

2. L. 57: Please add the information that river kilometre marking starts at the mouth because it is done the other way round for many other river systems.

Changes made:

We added an explanation of the Vistula river kilometre calculation in line 60. This revision had already been incorporated into the previous version of the manuscript.

3. L. 125 – l. 134 and Table 1: Better replace "river km 421+600" etc. by standard decimal values.

Changes made:

We added standard decimal values. See lines 138-141, 144 and Table 1. This revision had already been incorporated into the previous version of the manuscript.

5. L. 149: Do you mean “old readings” or “new readings” which “would be approximately 200 cm higher”?

Changes made:

We improved the clarity and readability of the text, lines 158-160. This revision had already been incorporated into the previous version of the manuscript.

6. L. 151, l. 156: Not every reader might know the Kronstadt 60 (East European Reference System) and EVRF2007 (European Vertical Reference System) references. Please add a short explanation.

Changes made:

A short explanation of the Kronstadt60 and EVRF2007 reference systems was added in line 165 and in the corresponding footnote. This revision had already been incorporated into the previous version of the manuscript.

8. L. 290: I highly appreciate the accuracy assessments using Unique Daily Values (UDV) and Days Without Change (DWC)!

Thank you for this comment!

10. L. 299: I guess “M” denotes the mean, and “SD” the standard deviation”, is that right?

Changes made:

That is correct. We have defined both abbreviations at their first occurrence in the text. Please see line 384. This revision had already been incorporated into the previous version of the manuscript.

11. L. 311-314: Incomplete phrase, please correct.

Changes made:

We improved the clarity and readability of the text, lines 377-379. This revision had already been incorporated into the previous version of the manuscript.

12. Figure 4A and Figure 5: What is the difference between these figures other than using either single dots or lines, and indication of the regression line or of the break points? I would suggest merging them. In addition, I urge to delete the regression line – it is not adequate facing the clear stepwise increase around 1915.

Changes made:

We deleted old figures to improve the clarity of the text. See new Figure 3, line 390. This revision had already been incorporated into the previous version of the manuscript.

13. Figure 2 and 7 are not referred to in the text.

References to Figure 2 and to the former Figure 7, now renumbered as Figure 5, were added to the manuscript. Lines 95-96, 488. This revision had already been incorporated into the previous version of the manuscript.