Response to Reviewer 7

We thank the reviewer for the positive evaluation and the careful language suggestions, which we will implement in the revised version of the manuscript. Reviewer comments are shown in italics; our responses follow in plain text.

General comments: The manuscript is of high quality and well structured. However, the manuscript requires minor revision and language editing before it can be accepted for publication. Specific comments and technical corrections:

C1: Tables 1 and 2 are provided primarily for reference purposes and are not essential for the interpretation of the main results or discussion. Therefore, they are more appropriately placed in the Supplementary Material.

Response: We will move Table 2 (long-term stations) to the Supplement (Table S1), where it is extended with coordinates, record values and the HYRAS-DE comparison; the station locations will be shown in Fig. 1. Table 1 will be kept in the main text because it defines the state abbreviations used in Fig. 1 and gives the values discussed in Sects. 3.2 and 3.4. A new, short Table 2 summarizing the heatwave metrics will be added at the request of Reviewer 6.

Minor comments:

In the caption of Figure 1, “stated” should be replaced with “states”.
Line 124: Replace “X” with the multiplication sign “×”.
Line 212-215: The idea is too long; it should be split into two connected sentences.
Line 215-218: The idea is too long; it should be split into two connected sentences.
Line 226: ”for the 16 federal states and the Germany average” should be replaced with “for the 16 federal states and the national average for Germany”.
In the caption of Figure 4, ”for the 16 federal states and the Germany average” should be replaced with “for the 16 federal states and the national average for Germany”.
Line 253-258: The idea is too long; it should be split into two connected sentences.
In the caption of Figure 8, ”Long-term trends of heatwave characteristics over Germany, over the period 1951-2026” should be replaced with “Long-term trends of heatwave characteristics over Germany during 1951-2026”.
Line 309-312: The idea is too long; it should be split into two connected sentences.
Line 319: Remove “context”.
Line 320: Insert the letter “s” in “context”.
Line 322-327: The idea is too long; it should be split into two or three connected sentences.
Line 331-335: The idea is too long; it should be split into two connected sentences.
Line 347-352: The idea is too long; it should be split into two connected sentences.
Line 409: “Its compact duration…” should be replaced with “The short duration of the observed extreme event…”.
Line 413-416: The idea is too long; it should be split into two connected sentences.
Line 422: Insert the closing parenthesis symbol “)” after ridge.
Line 413-416: The idea is too long; it should be split into two connected sentences.
Line 456-459: The idea is too long; it should be split into two connected sentences.
Line 459: “It was produced…” should be replaced with “The observed extreme event was produced…”.
Line 464-467: The idea is too long; it should be split into two connected sentences.
Line 465: Use lowercase in “In June”.

Response: all the aforementioned suggestions will be implemented in the revised version of the manuscript.