Resubmission of Manuscript ESSD-2023-349 – Response to editor comments
Hörður B. Helgason and Bart Nijssen, LamaH-Ice: LArge-SaMple DAta for Hydrology and Environmental Sciences for Iceland

Dear Andrea Popp,
Thank you for the comments, we have addressed them as described below. Additionally, we have corrected some small details in the manuscript and added additional references at two locations, also listed below.

Original comments in black
Responses in blue and bold

On behalf of the authors,
Hörður Bragi Helgason

Comment on essd-2023-349 by Topic Editor (Andrea Popp):
Dear Authors of manuscript essd-2023-349,

Thank you for the revised version of your manuscript where you adequately implemented the reviewers' comments. I am happy to inform you that your manuscript can be accepted for publication in ESSD after the following minor technical revisions:
- Fig.1: location of gauges in blue are hardly distinguishable from the blue background (drainage area). Please correct this, e.g., by changing the stroke colour of the location points to white (or similar). Also, please add the copyright icon "© Google" as requested by the editorial support.

We changed the stroke colour of the points to white and added "© Google" to the bottom of the figure.

- Please add the section "Competing interests" to the manuscript (request by editorial support).

This section was already in the manuscript, so no action has been taken regarding this point.

- Fig. 2: the line colours green and orange can be challenging to distinguish for people with red-green colour vision deficiency (the most common form of colour blindness). Please correct this by either using colours that are distinguishable by vision-impaired people or by adding a style to one of the lines (e.g., dots). Make sure to update the figure caption accordingly.

Thank you for this suggestion, we now use purple and blue instead of green and orange, and we have added another linestyle for the line showing cumulated gauge count.

Thank you for your contribution.
Best wishes,
Andrea Popp

We have also corrected some small details in the manuscript. These corrections are as follows:

Line 35 - Adjustment for better readability:
LamaH-Ice provides easy access to hydrometeorological timeseries, including multi-year series of observed streamflow, and catchment characteristics for 107 Icelandic catchments. The dataset is available to the scientific community for large-sample studies.

Line 48 - The Merz et al. (2006) reference was supplemented by two older references (Kovács, 1984; Pilgrim, 1983), to emphasize that hydrologists have been looking for ways of regionalization for a long time:
Hydrologists have long looked for ways to regionalize their understanding, i.e., to transfer knowledge about runoff response between two separate basins based on hydrological similarity (e.g. Kovács, 1984; Pilgrim, 1983; Merz et al., 2006)

Line 61 - Adding a citation regarding the newly released CAMELS-CH dataset:
New datasets, consistent with CAMELS, have been produced for other areas of the world, e.g., for Great-Britain (CAMELS-GB; Coxon et al., 2020), Chile (CAMELS-CL; Alvarez-Garreton et al., 2018), Australia (CAMELS-AUS; Fowler et al., 2021), ~~and~~ Brazil (CAMELS-BR; Chagas et al., 2020) and hydrologic Switzerland (CAMELS-CH; Höge et al., 2023).

Lines 85-86 - Mentioning that dynamic attributes were also included in CAMELS-CH:
These dynamic attributes were also included in the recently released CAMELS-CH dataset (Höge et al., 2023).

Line 122 - Correcting the name of the National Power Company of Iceland:
the ~~Iceland's~~ National Power Company of Iceland (NPC).

Line 128 – Fixing text for clarity:
The locations of the gauges in LamaH-Ice and their ~~total drainage area~~ catchments are shown in Figure 1.

Lines 198-200 – Inserting the abbreviations for the NPC and IMO:
Since 2009, the I~~celandic~~ M~~eteorological~~ O~~ffice~~ has been the government agency responsible for general hydrological research and streamflow measurements. The IMO operates a network of gauging stations. The N~~ational~~ P~~ower~~ C~~ompany of Iceland (NPC)~~ also operates a number of streamflow gauges to study and monitor the water resource at their current and proposed hydropower facilities.

Line 233 – Correcting the number of meteorological variables from ERA5-Land included in LamaH-Ice:
LamaH-Ice includes ~~15~~16 of these variables at an hourly and daily resolution for the period 1950–2021 (**Error! Reference source not found.**).

Line 247 – Figure number corrected:
Error! Reference source not found.a and ~~b~~d show $P - Q$ plotted against ETA using weather variables f rom the ERA5-Land reanalysis and the RAV-II reanalysis.

Figure 3 – Axis labels corrected:
~~Actual ET~~ ETA and unit added [-] where appropriate.

Line 290 – Typo corrected; ETA changed to ET:

From the RAV-II data, we used the Penman-Monteith equation to calculate reference *ET~~A~~* for well-watered agriculture land as recommended by Allen et al. (1998) (further explained in the Supplement, S3.3).

Line 402 – Adding a reference to section 5.7 regarding the volcanic rift zone:
The figure shows that the rivers draining the young and porous bedrock along the volcanic rift zone (section 5.7) have a high baseflow index, and rivers draining the low permeability bedrock in the western and eastern regions have a low baseflow index.

Table A1 – Improving clarity of the description of the "V_no" attribute and adding a missing "see above" for "obsend_hr":
Where not available, the NPC ~~WISKI~~ hydrological database station ID number is used.

References: Minor corrections were made in the formatting of references, the formatting of references of type "Technical report" was standardized based on journal instructions.

Supplement: A missing reference was added to table S2 (Jónsson et al, 2010) and minor corrections were made in the formatting of references.