

## ***Interactive comment on “The CAMELS data set: catchment attributes and meteorology for large-sample studies” by Nans Addor et al.***

### **Anonymous Referee #1**

Received and published: 2 May 2017

This manuscript describes and presents a dataset of catchment and hydroclimatic attributes for a set of un-impacted (less impacted?) catchments in the continental USA to facilitate large-sample / comparative hydrologic research. The dataset presented in this paper is a significant contribution to large-sample hydrology and worthy of publication. When combined with the time series records provided by Newman et al. (2015), the CAMELS dataset will allow researchers around the world to quickly test a range of hypotheses without spending significant amounts of time (~months) re-collating a similar dataset. Making the dataset freely available online is excellent and is an example for other researchers to follow. Overall the manuscript is very well written and presented and only requires very minor changes as detailed below.

Minor comments

C1

Abstract: It would be good to indicate in the Abstract that the catchments are un-impacted / less impacted by anthropogenic changes. This important point is buried on Page 12, line 9.

P3, L3: change “data sets used to for their” to “data sets used for their”.

P4, L15: remove repetition of “in the” before “Great Plains”.

P5, L25: The seasonality and timing of precipitation and temperature are summarised by sine curves fit to the monthly mean values. The authors need to report on the goodness-of-fit of these sine curves as the resulting single metric is based on the sine curve's, which may, or may not, provide a good fit to the data.

P6, L2: Please provide an explanation of what + and - values of the seasonality metric (Figure 3a) actually mean.

P6, L4: “ragnes” should be “ranges”.

P6, L26: “Hydrograph separation is often considered to be desperate” – although Beven (2012) makes a similar statement, it would be helpful to the reader to know the wider context of this statement. Why is hydrograph separation considered desperate?

P6, L28: change “provides” to “provide”.

P7, L14: remove repetition of “as” before “low as”.

P7, L21: change “slope flow” to “slope of the flow”.

P8, L6 + other locations: change “Mcmillan” to “McMillan”.

P9, L1: change “consider important” to “consider it important”.

P10, L1: change “It however” to “However, it”.

P10, L16: change “P16both” to “P16 both”.

P12, L9: change “them is classified” to “them are classified”.

C2

P12, L31: change “used in large” to “used in a large”.

P13, L3: change “catchment are common” to “catchments in common”.

P13, L11: change “It noteworthy” to “It is noteworthy”.

P13, L13: change “depend the catchments” to “depend on the catchments”.

P14, L9: change “it will be keep” to “it will keep”.

Reference to Ladson et al (2013): change “Bronw” to “Brown”.

Figure 2 Caption: change “5%of daily” to “5% of daily”

Figure 5: To make the comparison between 5g and 5h easier to see, I recommend using a single scale for the two plots. In this way the same colour would mean the same soil depth in both maps. In the current version dark green means two different soil depths, which is confusing to the reader.

Figure 5 Caption: change “a-h and j-k” to “a-h and j-l”

Figure 6 Caption: change “a) to h)” to “a) to j)”

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