

Interactive comment on “Changing climatic and anthropogenic influences on the Bermejo wetland, through archival documents – Mendoza, Argentina, 16th–20th centuries” by M. R. Prieto and F. Rojas

Anonymous Referee #3

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This study sets out to reconstruct changes in the area of a wetland, east of the modern city of Mendoza (Argentina) using a range of data sources, with a focus on four maps covering the period from 1802 to 1903. One of the key questions seems to be the relative importance of climatic fluctuations and anthropogenic impact (primarily deliberate drainage) in driving any observed changes in wetland extent. Unfortunately, the paper as it stands is not well structured, or well written and the logic of the argument is difficult to follow. There may well be a publishable paper here, but it would require major redrafting. Greater care also needs to be taken with matters such as referencing

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(a number are cited in the text, but not listed at the end) and the quality of English.

Introduction. This seems rather confused to me, covering a wide range of topics, geographical areas and timescales. There are also a number of factual errors in it at present in relation to previous studies. This could be rewritten to be much more specific, setting out clear goals for this study and the questions it seeks to address.

Study area. This could be clearer, explaining the geographical context of the wetland. The fact that the wetland was effectively drained by the 1930s could usefully come here rather than right at the end.

Methodology and sources. This refers to the use of a wide range of source materials from colonial documents to satellite images, but the main focus of the paper is the four maps, with some longer term context provided by the long reconstruction of Mendoza river streamflow published previously by one of the authors. I would suggest focusing on the data types that are actually used. It would be interesting to know more about why these maps were drawn up and for whom.

Background. This actually includes both new results and a discussion of previous data. Why not focus on the period covered by the maps, explain the apparent changes in wetland area and then discuss their possible relationship to either climate or (and?) human activity. At present, the climate change record is effectively taken as a ‘given’, although the data sources for these reconstructions are not always clear. There is an unexplained reference to changes in the second half of the 20th century, when we are told that the marsh was dry by then. The significance of the long stream flow record in relation to the wetland area reconstruction needs to be made clearer.

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