

Review of: "A Review of the Drawdown Zone in African Reservoirs: Current Knowledge, Understudied Areas and Recommendations for Future Research"

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Potential competing interests: No potential competing interests to declare.

Manuscript title

The title is long and can be streamlined for conciseness and legibility, such as changing it from '**A Review of the Drawdown Zone in African Reservoirs: Current Knowledge, Understudied Areas and Recommendations for Future Research**' to maybe '**Understanding Drawdown Zones in African Reservoirs: Current Knowledge, Gaps, and Future Directions**'

Abstract

Overall, the abstract provides a comprehensive overview of the importance of drawdown zones in African freshwater reservoirs and highlights the need for further research and clarification on their ecology, utilization, and threats. However, some suggested modifications to enhance readability and clarity are:

- i. The abstract outlines several objectives, but they can be more explicitly stated for better clarity. For example, instead of "**This review aimed to**," consider rephrasing to "The objectives of this review are to:
- ii. Some sentences are lengthy and can be divided for better readability. For instance, consider breaking down the sentence starting with "Nonetheless, studies on the ecology..." for improved clarity.
- iii. While it's important to maintain scientific accuracy, consider simplifying complex terminology where possible to cater to a broader audience without sacrificing precision.
- iv. The abstract could benefit from a brief conclusion summarizing the main findings or implications of the review.

Introduction

There is a lack of clarity and coherence: The introduction lacks clarity in organization and flow, making it difficult for readers to follow the main points.

For instance, "*Natural and artificial drawdowns are necessary for ecological functions (Wantzen et al., 2008), and biodiversity conservation, although a stable lake can also function perfectly well (Semlitsch and Bodie, 2003). An exponential increase in human population has led to high water drawdown cycles in reservoirs (Hellsten et al., 2001, Strayer and Findlay, 2010).*" In these sentences, the transition between discussing the necessity of drawdowns for ecological functions and biodiversity conservation to the impact of human population growth on water drawdown cycles is

abrupt. The connection between these two points is not clear, leading to confusion for the reader.

Drawdowns are more pronounced in shallow lakes and determine overall diversity, condition of shoreline physical habitat, littoral communities and animal habitats (Van Oort et al., 2015). Although drawdowns are critical for ecosystem structure and function, hydrologic drawdowns which exceed natural variability are detrimental to reservoir ecosystems as they alter shoreline geomorphology and modify some morphometric parameters e.g. shoreline irregularity (Winfield, 2004; Peters and Lodge, 2009; Strayer and Findlay, 2010)." In this example, the discussion jumps from the impact of drawdowns on lake diversity and habitat conditions to the detrimental effects of hydrologic drawdowns on reservoir ecosystems without a clear transition or explanation of the shift in focus. This abrupt change in topic makes it difficult for the reader to follow the flow of the text. Thus, given the above issues, I suggest you clarify and streamline the introduction: Arrange the information in a *logical order*, starting with a clear statement of the purpose and scope of the review. Provide a brief overview of the key concepts and findings before investigating the specific details.

Unclear statements/repetition: eg 1. "*Drawdowns are more pronounced in shallow lakes and determine overall diversity, condition of shoreline physical habitat, littoral communities and animal habitats.*" Consider Combining and streamlining the sentence to avoid repetition. The above sentence can be written as "*Drawdowns significantly affect overall diversity, shoreline habitat condition, and the communities of littoral flora and fauna.*"

Eg2. "Nonetheless, altered drawdown regimes that include frequent, and extreme fluctuations and some periods of relative water level stabilization create novel environments which may attract adaptive organisms." The sentence can be written as", *Altered drawdown regimes, featuring frequent extreme fluctuations and periods of water level stabilization, create novel environments that attract adaptive organisms.*"

Eg3: "Recently submerged or currently exposed terrestrial points in the shoreline zones defined as littoral, eulittoral or drawdown zones serve vital ecological functions in reservoirs." Consider rewriting this sentence as "Terrestrial points submerged or exposed in shoreline zones, termed littoral, eulittoral, or drawdown zones, play vital ecological roles in reservoirs."

Methodology

To improve the methodology, I suggest you consider these comments:

Search Strategy and Selection Criteria Clarity:

The search strategy should be clearly defined, particularly regarding the rationale behind the choice of search terms and databases. The text mentions terms like "limnology-fisheries," "drawdowns-ecology," etc., but it's not entirely clear why these specific terms were chosen or how they relate to the research question.

The rationale for selecting the databases (Google Scholar, Scopus, Bing, Give Water, ISI Web of Knowledge) should be stated, along with any limitations associated with these databases.

Documentation and Reproducibility:

The methodology should include more information about the documentation process, including any tools or software used for managing references, screening abstracts, and extracting data. This would enhance the reproducibility of the study and allow others to verify the results independently.

Results

Supporting Evidence: While the section references several studies to support its claims, it could improve by providing more specific examples or data from these studies to strengthen its arguments. For instance, instead of simply mentioning that "several studies" have indicated high productivity in drawdown zones, it could cite specific findings or results from these studies to illustrate the point more convincingly.

Critical Analysis: The section could benefit from a more critical analysis of existing literature and research gaps. While it acknowledges the scarcity of research on drawdown zones in African reservoirs, it could go deeper into why these zones have been overlooked and what specific research questions or methodologies are needed to address this gap effectively.