[the water paper]

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Key Points:

* New measurements enhance the stable isotope hydrology record for the Turkana Basin
* Evaporation modelling provides water balance estimates under arid, closed basin lake conditions

Abstract

Plain Language Summary

1 Introduction

Lake Turkana is the largest desert lake in the world. It is one of the African Great Lakes, situated in the northern portion of the East African Rift System. Most of the lake lies in Kenya, and the Omo River Delta at the north end of the lake spans both sides of the border between Kenya and Ethiopia (Figure 1).

Map

Description automatically generated

**Figure 1.** Sample location map for waters collected in the Turkana Basin, 2016–2021

2 Materials and Methods

3 Data



**Figure 2** Water isotope measurements



**Figure 3.** Lake water isotopes and lake height records from Global Reservoirs and Lakes Monitor (G-REALM)

4 Results



**Figure 4.** Lake evaporation models with varying input conditions

5 Conclusions

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Open Research

References