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Background and motivation

Intermittent and ephemeral rivers are characterized by periods of drying and rewetting which occur along different reaches of the channel. The channel dries or develops into ponds related to factors such as discharge, topography, geology and riparian vegetation. The analysis of the hydrological diversity of semiarid rivers is important to understand their ecological role and habitat.

The **aim** of this work is **to evaluate the** spatial patterns and dynamics of intermittency in reaches of a Brazilian semiarid river.





resolution for comparison





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Spatial distribution of intermittency in a Brazilian Semiarid river





points for georeferencing

Work in progress! We're glad to hear suggestions



Bom Nome reservoir (Area: 22 ha; Storage capacity: 493,000 m³)



Road interrupiting river flow and 0 25 50 m pool occurrence.



and different water occurence (with denser vegetation) after that

Fig. 4 Examples of common characteristics in Umbuzeiro river sections. Each image corresponds to a letter indicated in Fig. 3 at its the approximated location in the flight it was extracted from.

What do we know so far?

- particularly in terms of:
 - Upstream drainage area
 - Seasonality

Next steps:

- - River's natural sinuosity,
 - Riffle-pool sequences, and
 - Riparian vegetation

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Dry Season and smaller 0 75 150 m reservoir (1 ha)



Riffle-pool sequence and presence of algae in small pool

0 25 50 m

0 75 150 m



Crop production and riverbed 25 50 m low visibilty due to vegetation

• Vegetation and water indexes were not helpful in water classification • Very high temporal and spatial variability of water occurrence patterns,

- Vegetation had a big influence on topographic model

• Evaluate water occurrence related to other characteristics, observing:





