# Deplete and Retreat – The future of Andean water resources

Rike Becker (r.becker@imperial.ac.uk)

## Study Region & Research Objectives

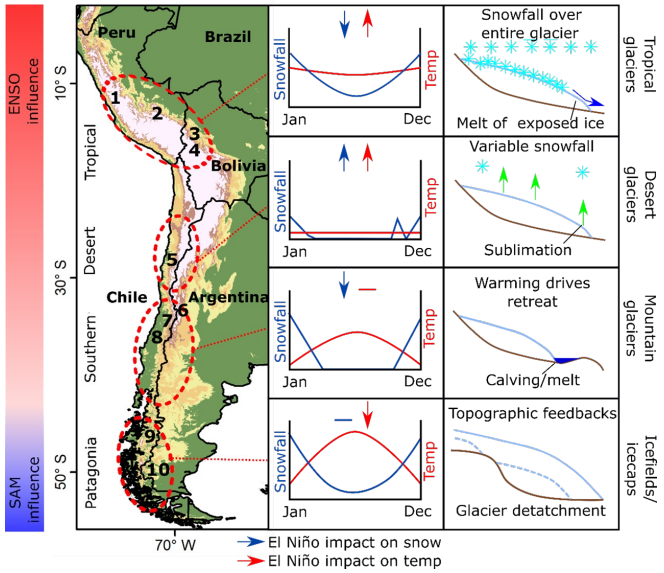



*Figure courtesy of Deplete and Retreat*

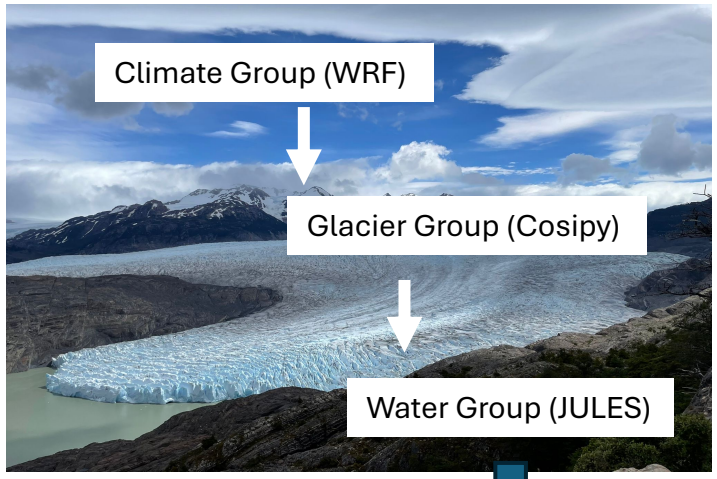
**Current situation:**

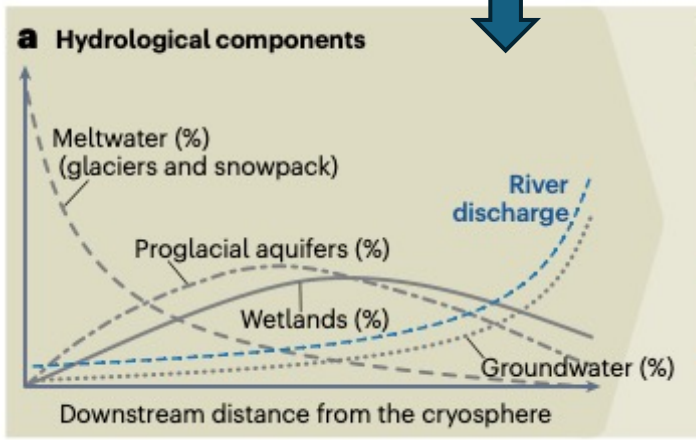
- Glaciers are shrinking at an unprecedented rate.
- Catchments react very differently to the loss of ice and snow melt contributions.

**Research Objectives:**

- Investigating how changes in glacier and snow melt are impacting water availability further downstream.

## Workflow



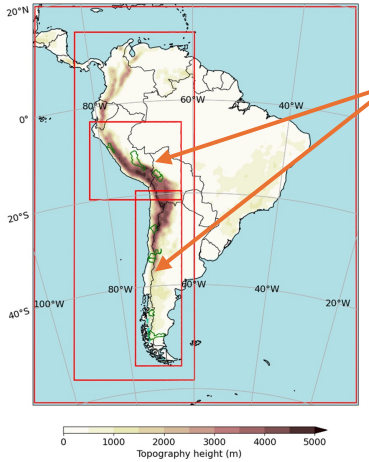




Drenkhan et al. 2022

## JULES

**Pre-processing of input data:**

- Soil (HiHydroSoil, SoilGrids, Dai et al., 2019)
- Plant Functional Types (Harper et al., 2023)
- Slope (PDM-file) from DEM (HydroSheds)
- Climate input (WRF DaR climate group)
- Grid: WRF-grid (LCC coordinate system)




**Regions to be simulated**
2 domains, each on a 4 km x 4 km grid

**JULES set-up**
Namelists and rose-suite configurations

**JULES run**

**Post-processing of outputs**

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