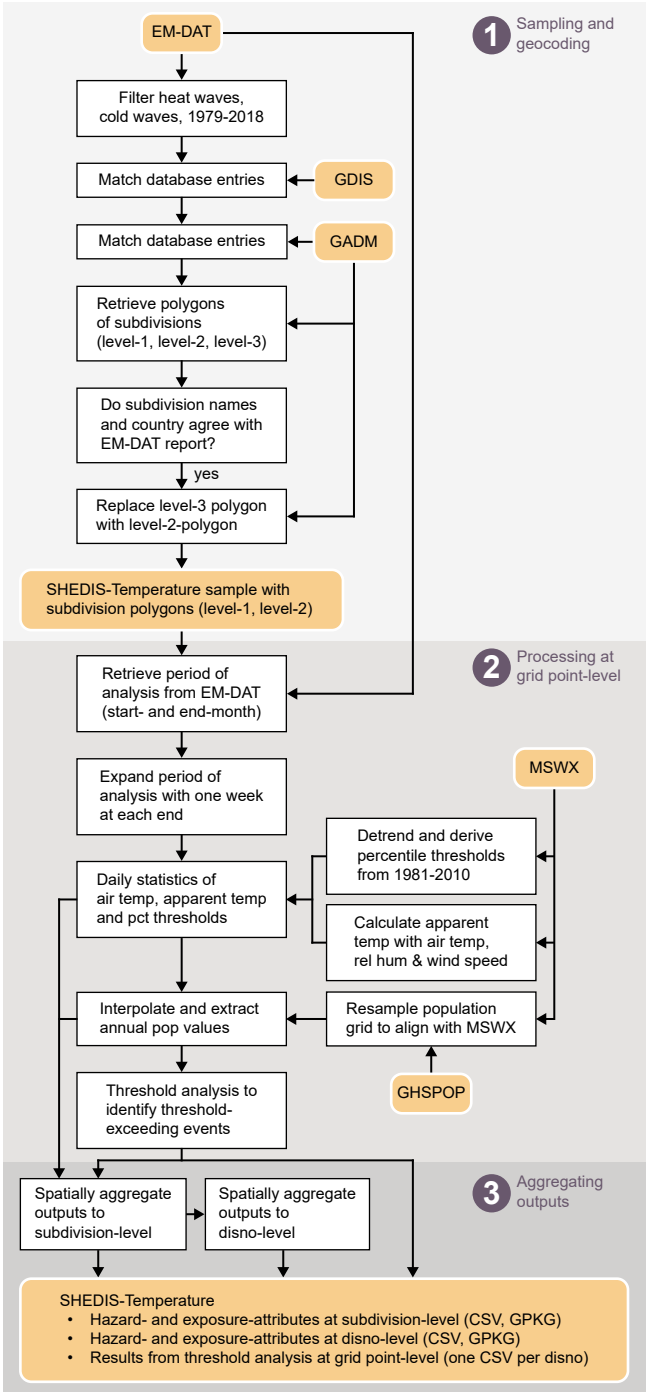
EM-DAT
1 Sampling and geocoding
Filter heat waves, cold waves, 1979-2018
Match database entries
GDIS
Match database entries
GADM
Retrieve polygons of subdivisions (level-1, level-2, level-3)
Do subdivision names and country agree with EM-DAT report?
yes
Replace level-3 polygon with level-2-polygon
SHEDIS-Temperature sample with subdivision polygons (level-1, level-2)
2 Processing at grid point-level
Retrieve period of analysis from EM-DAT (start- and end-month)
Expand period of analysis with one week at each end
MSWX
Detrend and derive percentile thresholds from 1981-2010
Daily statistics of air temp, apparent temp and pct thresholds
Calculate apparent temp with air temp, rel hum & wind speed
Interpolate and extract annual pop values
Resample population grid to align with MSWX
GHSPOP
Threshold analysis to identify threshold-exceeding events
3 Aggregating outputs
Spatially aggregate outputs to subdivision-level
Spatially aggregate outputs to disno-level
SHEDIS-Temperature
• Hazard- and exposure-attributes at subdivision-level (CSV, GPKG)
• Hazard- and exposure-attributes at disno-level (CSV, GPKG)
• Results from threshold analysis at grid point-level (one CSV per disno)