P/T obs
stations, daily
➕
ERA-20C reanalysis
1.25°x1.25°, daily

(1) Analogue model

30 resampled MAP values
basin-scale, daily

30 resampled MAT values
basin-scale, daily

(2) Gamma distribution

30 unobserved MAP values
basin-scale, daily

(3) Schaake shuffle

MAP obs
basin-scale, daily

30 MAP time series scenarios
basin-scale, daily

30 MAT time series scenarios
basin-scale, daily

MAT ERA-20C
basin-scale, daily

MAT obs
basin-scale, daily

MAP bias correction

MAT bias correction

30 bias-corrected MAP scenarios
basin-scale, daily

bias-corrected MAT ERA-20C
basin-scale, daily

(4) Spatial disaggregation

(5) MAT correction

30 spatially coherent P scenarios
stations, daily

30 spatially coherent P scenarios
stations, daily

30 corrected T scenarios
stations, daily

30 corrected T scenarios
stations, daily