myClim

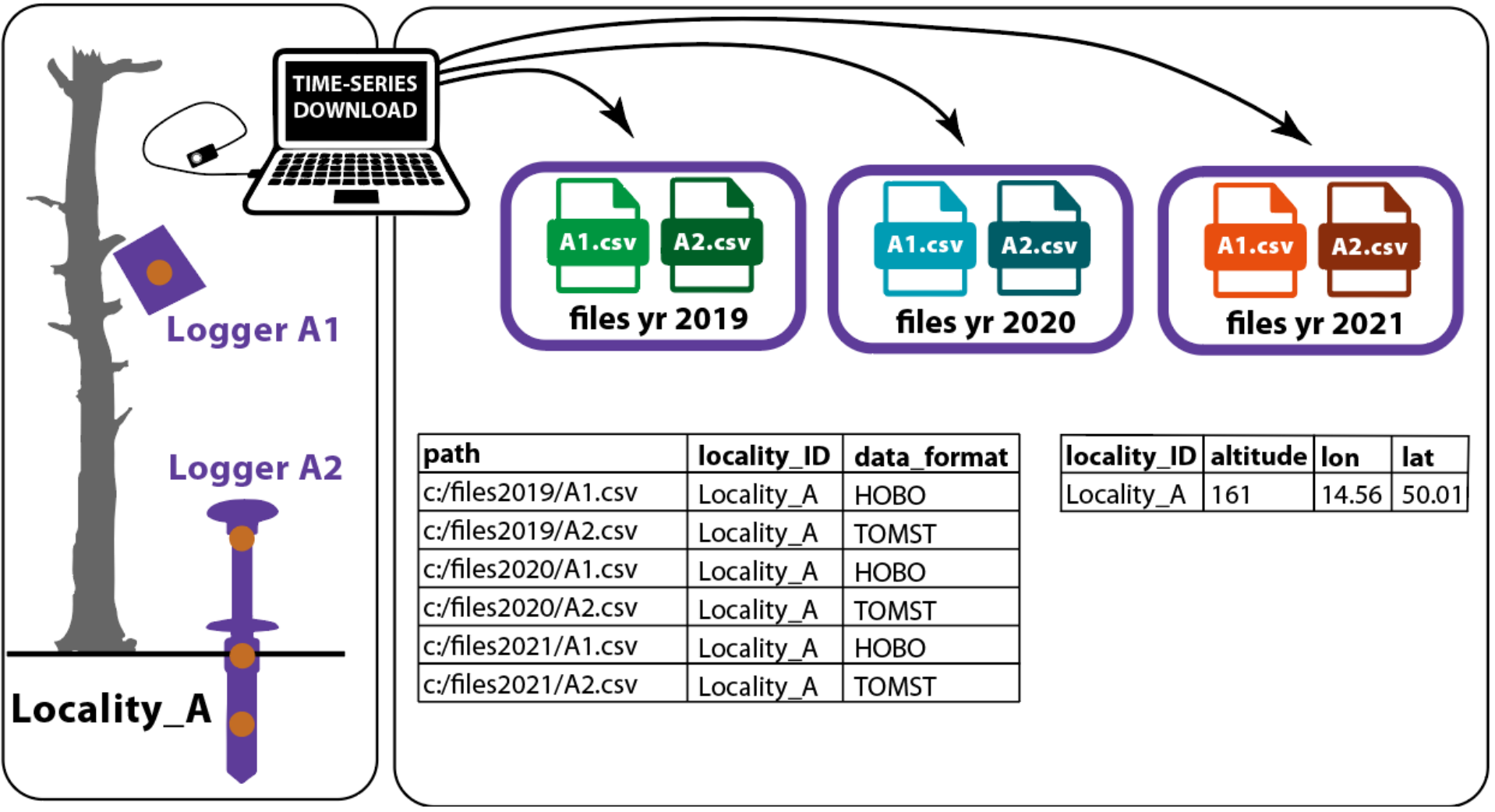
Microclimate data handling and standardised analyses in R

http://labgis.ibot.cas.cz

https://github.com/ibot-geoecology/myClim

https://github.com/manmatej/2023_SoilTemp_virtual

***Matěj Man**, Vojtěch Kalčík, Martin Macek, Josef Brůna, Lucia Hederová, Jan Wild, Martin Kopecký*



path	locality_ID	data_format
c:/files2019/A1.csv	Locality_A	HOBO
c:/files2019/A2.csv	Locality_A	TOMST
c:/files2020/A1.csv	Locality_A	HOBO
c:/files2020/A2.csv	Locality_A	TOMST
c:/files2021/A1.csv	Locality_A	HOBO
c:/files2021/A2.csv	Locality_A	TOMST

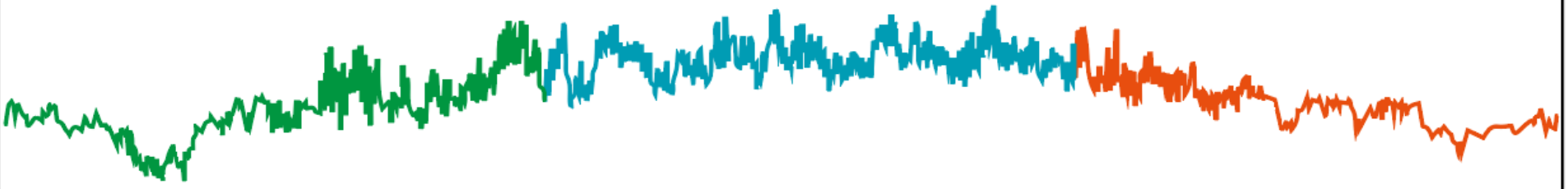
locality_ID	altitude	lon	lat
Locality_A	161	14.56	50.01

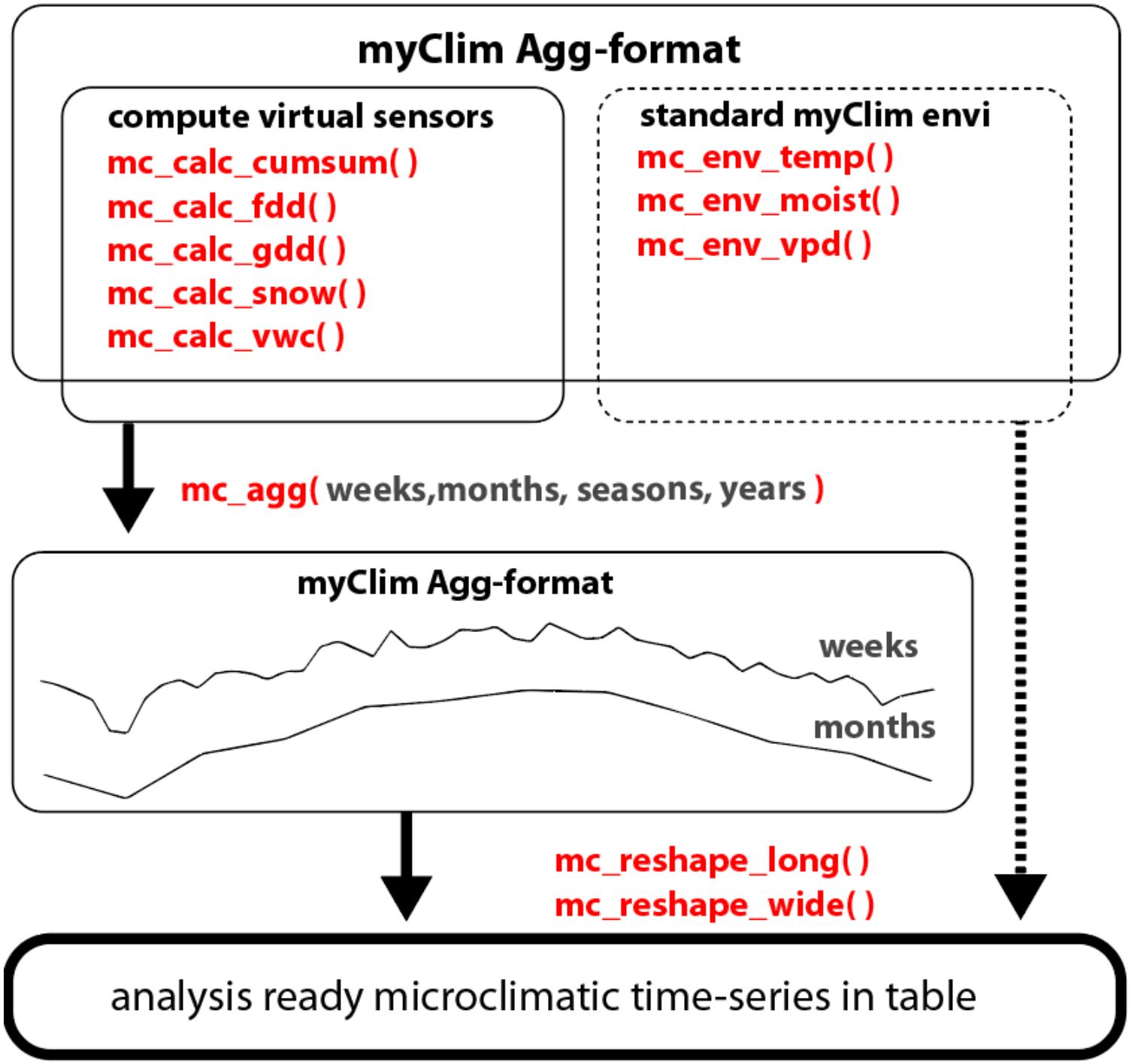
myClim Raw-format

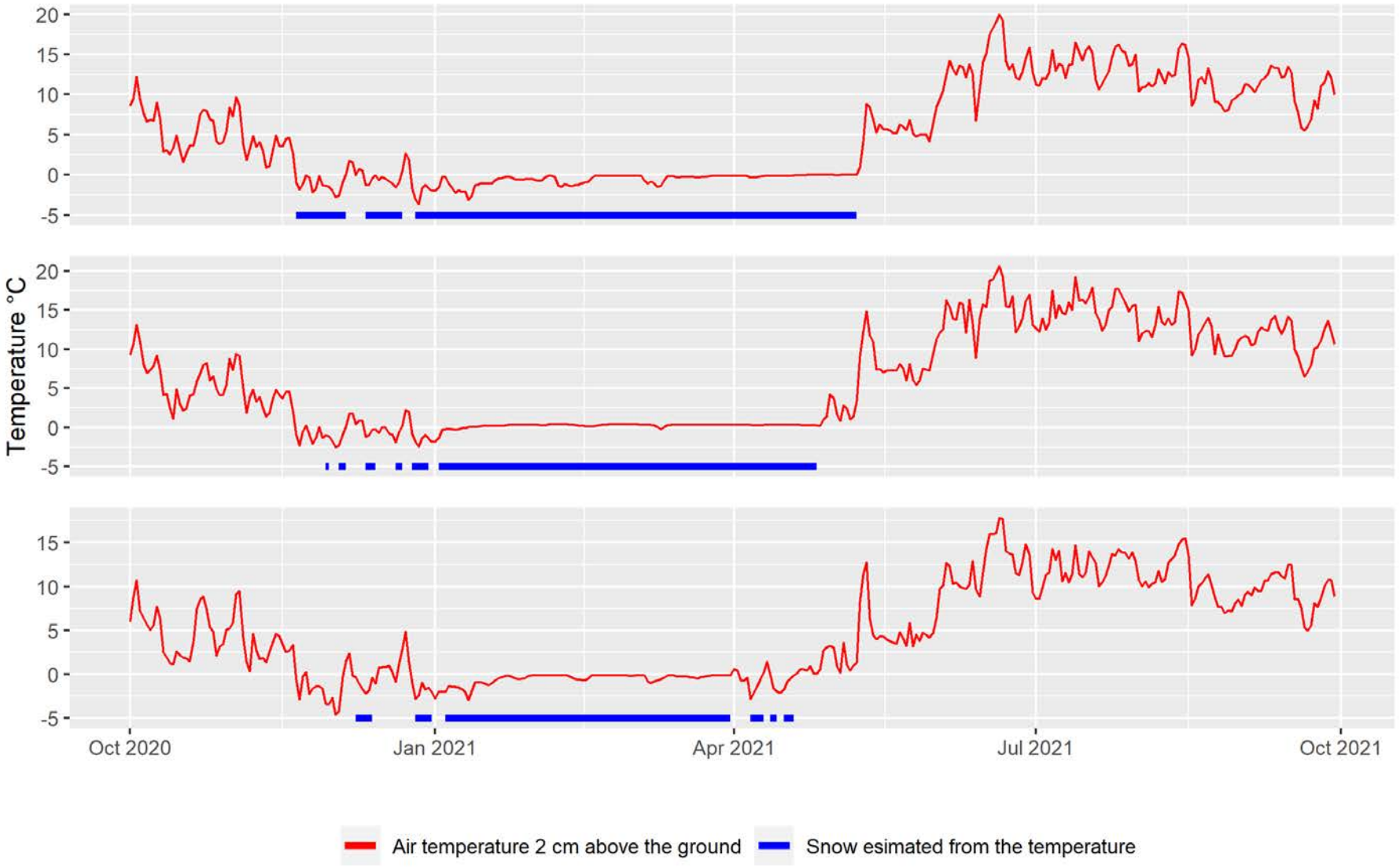
mc_prep_clean( )
mc_prep_calib( )
mc_prep_calib_load( )
mc_prep_meta( )
mc_prep_solar_tz( )

correct time-series
calibrate records
update metadata
compute solar time

mc_join( )




myClim Agg-format
compute virtual sensors
mc_calc_cumsum( )
mc_calc_fdd( )
mc_calc_gdd( )
mc_calc_snow( )
mc_calc_vwc( )
standard myClim envi
mc_env_temp( )
mc_env_moist( )
mc_env_vpd( )
mc_agg(weeks,months, seasons, years)
myClim Agg-format
weeks
months
mc_reshape_long( )
mc_reshape_wide( )
analysis ready microclimatic time-series in table


Temperature °C
20
15
10
5
0
-5
Oct 2020
Jan 2021
Apr 2021
Jul 2021
Oct 2021
Air temperature 2 cm above the ground
Snow esimated from the temperature