

**Appendix S1** Schema of the *myClim* i.) *Raw-format* and ii.) *Agg-format* objects. The schema is helpful to navigate through the myClim objects using standard R syntax [] \$ @ if necessary.  
(e.g., tms.clean\$localities[["91171001"]]\$loggers[[1]]\$sensors\$TS\_T\$values; tms.clean\$localities[["91171001"]]\$metadata@locality\_id).

i.) Schema of the *myClim Raw-format*

\$metadata	+-----+   mc_MainMetadata - class   +-----+   @version   @format_type +-----+			
\$localities	+-----+   locality[1] +-----+   \$metadata   mc_LocalityMetadata - class   +-----+   @locality_id   @elevation   @lat_wgs84   @lon_wgs84   @tz_offset   @tz_type   @user_data +-----+   \$loggers   logger[1] +-----+   \$metadata   mc_LoggerMetadata - class   +-----+   @type   @serial_number +-----+   \$clean_info   mc_LoggerCleanInfo - class   +-----+   @step   @count_duplicities   @count_missing   @count_disordered   @rounded +-----+   \$datetime   POSIXct vector +-----+   \$sensors   sensor[1] +-----+   \$metadata   mc_SensorMetadata - class   +-----+   @sensor_id   @name   @height   @calibrated +-----+   \$values   numeric/logical vector +-----+   \$calibration   datetime   cor_factor   cor_slope     ...   ...   ...   +-----+   \$states   tag   start   end   value     ...   ...   ...   ...   +-----+   sensor[2] +-----+   ... +-----+   sensor[n] +-----+   logger[2] +-----+   ... +-----+   logger[n] +-----+   locality[2] +-----+   ... +-----+   locality[n] +-----+			

ii.) Schema of the *myClim Agg-format*

\$metadata	+-----+   mc_MainMetadataAgg - class   +-----+   @version   @format_type   @step   @period   @intervals_start   @intervals_end +-----+			
\$localities	+-----+   locality[1] +-----+   \$metadata   mc_LocalityMetadata - class   +-----+   @locality_id   @elevation   @lat_wgs84   @lon_wgs84   @tz_offset   @tz_type   @user_data +-----+   \$datetime   POSIXct vector +-----+   \$sensors   sensor[1] +-----+   \$metadata   mc_SensorMetadata - class   +-----+   @sensor_id   @name   @height   @calibrated +-----+   \$values   numeric/logical vector +-----+   \$calibration   datetime   cor_factor   cor_slope     ...   ...   ...   +-----+   \$states   tag   start   end   value     ...   ...   ...   ...   +-----+   sensor[2] +-----+   ... +-----+   sensor[n] +-----+   locality[2] +-----+   ... +-----+   locality[n] +-----+			