README: Structure and descriptions of SuuplData folder

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REMARKS:
1) Please proceed with the analyses in the order of the R script file numbers.
2) In ‘figure’ and ‘res’ folders and their subfolders, ‘dummy.txt’ files are created to preserve the folder structure. You may delete these ‘dummy.txt’ files after unzipping.

‘SuuplData’ folder: Root folder
- SuuplData.Rproj: R project file used in RStudio
- 01_PeterssDuiker_density.R: R script for density estimation of Peters’s duikers
- 02_BayDuiker_density.R: R script for density estimation of bay duikers
- 03_BlueDuiker_density.R: R script for density estimation of blue duikers
- 04_Porcupine_density.R: R script for density estimation of brush-tailed porcupines
- 05_PouchedRat_density.R: R script for density estimation of Emin’s pouched rats
- 06_PeterssDuiker_mass.R: R script for mean body mass estimation of Peters’s duikers
- 07_BayDuiker_density.R: R script for mean body mass estimation of bay duikers
- 08_BlueDuiker_density.R: R script for mean body mass estimation of blue duikers
- 09_Porcupine_density.R: R script for mean body mass estimation of brush-tailed porcupines
- 10_Biomass_and_Indicators.R: R script for estimations of the bushmeat biomass and bushmeat indicators

‘data’ folder: Folder containing data
- BodyMassData.csv: Data of body mass
  - Seq: Data point ID
  - Year: Year when the animal was captured
  - Date: Date when the animal was captured
  - Species: animal species (bay_d, bay duikers; blue_d, blue duikers; peter_d, Peters’s duikers; porcup, brush-tailed porcupines)
  - Mass: body mass (in kilograms)
- DetectionData.csv: Data of the number of anima passes
  - ID: Data point ID
  - Station: Camera station ID
  - Blue_d: the number of blue duiker passes
  - Peter_d: the number of Peters’s duiker passes
  - Bay_d: the number of bay duiker passes
  - Porcup: the number of brush-tailed porcupine passes
- **Giant_rat**: the number of Emin’s pouched rat passes
- **Day**: the number of days the camera was operational
- **Site**: Site covariate (GB, Gribé; GP, Gouonepoum; ZB, Zoulabot)
- **Zone**: Zone covariate (Agro, agroforestry zone; Log, logging zone; Park, national park)
- **Distance**: Distance from the road

**StayTimeData.csv**: Data of the staying time
- **Seq**: Data point ID
- **Station**: Camera station ID
- **File**: Video file ID
- **DateTime**: Date and Time of the video recording
- **Date**: Date of the video recording
- **Time**: Time of the video recording
- **StayingTime**: the staying time (in seconds)
- **Response**: Whether the animal has reacted to the camera or camera station (yes) or not (no)
- **EndTrunc**: Whether the staying time was right-censored (yes) or not (no)
- **Site**: Site covariate (GB, Gribé; GP, Gouonepoum; ZB, Zoulabot)
- **Zone**: Zone covariate (Agro, agroforestry zone; Log, logging zone; Park, national park)
- **Distance**: Distance from the road

- ‘figures’ folder: Folder where figures will be saved
- ‘res’ folder: Folder where the model results will be saved
  - ‘bay_d’ folder: for results on bay duiker analyses
    - ‘mass’ folder: for mean body mass estimation
    - ‘rest’ folder: for density estimation (using the REST model)
    - ‘stay’ folder: for staying time estimation
  - ‘blue_d’ folder: for results on blue duiker analyses
    - ‘mass’ folder: for mean body mass estimation
    - ‘rest’ folder: for density estimation (using the REST model)
    - ‘stay’ folder: for staying time estimation
  - ‘giant_rat’ folder: for results on pouched rat analyses
    - ‘rest’ folder: for density estimation (using the REST model)
    - ‘stay’ folder: for staying time estimation
  - ‘peter_d’ folder: for results on Peters’s duiker analyses
    - ‘mass’ folder: for mean body mass estimation
    - ‘rest’ folder: for density estimation (using the REST model)
    - ‘stay’ folder: for staying time estimation
  - ‘porcup’ folder: for results on porcupine analyses
❖ ‘mass’ folder: for mean body mass estimation
❖ ‘rest’ folder: for density estimation (using the REST model)
❖ ‘stay’ folder: for staying time estimation

❖ ‘stan’ folder: Folder containing stan files
  ➢ ‘bay_d’ folder: stan files used in bay duiker analyses
  ❖ ‘rest’ folder: stan files used in density estimation
    ● REST3_negb_a_exp_ar.stan: REST model that uses negative binomial and exponential distributions and includes a random station effect on the staying time
    ● REST3_negb_aXb_exp_ar.stan: REST model that uses negative binomial and exponential distributions and includes a random station effect on the staying time and covariates of the density
    ● REST3_negb_aXb_exp_ar_pred.stan: REST model used for the prediction of the optimal model
  ➢ ‘stay’ folder:
    ● STAY2_exp_cens_a_waic.stan: Staying time model that uses an exponential distribution and includes only an intercept
    ● STAY2_exp_cens_ar_mwaic.stan: Staying time model that uses an exponential distribution and includes an intercept and a random station effect
    ● STAY2_exp_cens_aXb_waic.stan: Staying time model that uses an exponential distribution and includes covariates
    ● STAY2_exp_cens_aXbr_mwaic.stan: Staying time model that uses an exponential distribution and includes covariates and a random station effect
    ● STAY2_gma_cens_a_waic.stan: Staying time model that uses a gamma distribution and includes only an intercept
    ● STAY2_gma_cens_ar_mwaic.stan: Staying time model that uses a gamma distribution and includes an intercept and a random station effect
    ● STAY2_gma_cens_aXb_waic.stan: Staying time model that uses a gamma distribution and includes covariates
    ● STAY2_gma_cens_aXbr_mwaic.stan: Staying time model that uses a gamma distribution and includes covariates and a random station effect
    ● STAY2_lnm_cens_a_waic.stan: Staying time model that uses a lognormal distribution and includes only an intercept
    ● STAY2_lnm_cens_ar_mwaic.stan: Staying time model that uses a lognormal distribution and includes an intercept and a random station effect
    ● STAY2_lnm_cens_aXb_waic.stan: Staying time model that uses a lognormal distribution and includes covariates
    ● STAY2_lnm_cens_aXbr_mwaic.stan: Staying time model that uses a lognormal distribution and includes covariates and a random station effect
- **STAY2_wbl_cens_a_waic.stan**: Staying time model that uses a Weibull distribution and includes only an intercept
- **STAY2_wbl_cens_ar_mwaic.stan**: Staying time model that uses a Weibull distribution and includes an intercept and a random station effect
- **STAY2_wbl_cens_aXb_waic.stan**: Staying time model that uses a Weibull distribution and includes covariates
- **STAY2_wbl_cens_aXbr_mwaic.stan**: Staying time model that uses a Weibull distribution and includes covariates and a random station effect

- **STAY_exp_cens_a_waic.stan**: Staying time model that uses an exponential distribution and includes only an intercept
- **STAY_exp_cens_ar_mwaic.stan**: Staying time model that uses an exponential distribution and includes an intercept and a random station effect
- **STAY_exp_cens_aXb_waic.stan**: Staying time model that uses an exponential distribution and includes covariates
- **STAY_exp_cens_aXbr_mwaic.stan**: Staying time model that uses an exponential distribution and includes covariates and a random station effect

- **STAY_gma_cens_a_waic.stan**: Staying time model that uses a gamma distribution and includes only an intercept
- **STAY_gma_cens_ar_mwaic.stan**: Staying time model that uses a gamma distribution and includes an intercept and a random station effect
- **STAY_gma_cens_aXb_waic.stan**: Staying time model that uses a gamma distribution and includes covariates
- **STAY_gma_cens_aXbr_mwaic.stan**: Staying time model that uses a gamma distribution and includes covariates and a random station effect
- **STAY_lnm_cens_a_waic.stan**: Staying time model that uses a lognormal distribution and includes only an intercept
- **STAY_lnm_cens_ar_mwaic.stan**: Staying time model that uses a lognormal distribution and includes an intercept and a random station effect
- **STAY_lnm_cens_aXb_waic.stan**: Staying time model that uses a lognormal distribution and includes covariates

- **blue_d** folder: stan files used in blue duiker analyses
- **rest** folder: stan files used in density estimation
  - **REST_negb_a_wbl_aXb.stan**: REST model that uses negative binomial and Weibull distributions and includes covariates of the staying time
  - **REST_negb_aXb_wbl_aXb.stan**: REST model that uses negative binomial and Weibull distributions and includes covariates of the staying time and the density
  - **REST3_negb_aXb_wbl_aXb_pred.stan**: REST model used for the prediction of the optimal model

- **stay** folder: stan files used in staying time estimation
  - **STAY_exp_cens_a_waic.stan**: Staying time model that uses an exponential distribution and includes only an intercept
  - **STAY_exp_cens_ar_mwaic.stan**: Staying time model that uses an exponential distribution and includes an intercept and a random station effect
  - **STAY_exp_cens_aXb_waic.stan**: Staying time model that uses an exponential distribution and includes covariates
  - **STAY_exp_cens_aXbr_mwaic.stan**: Staying time model that uses an exponential distribution and includes covariates and a random station effect
  - **STAY_gma_cens_a_waic.stan**: Staying time model that uses a gamma distribution and includes only an intercept
  - **STAY_gma_cens_ar_mwaic.stan**: Staying time model that uses a gamma distribution and includes an intercept and a random station effect
  - **STAY_gma_cens_aXb_waic.stan**: Staying time model that uses a gamma distribution and includes covariates
  - **STAY_gma_cens_aXbr_mwaic.stan**: Staying time model that uses a gamma distribution and includes covariates and a random station effect
  - **STAY_lnm_cens_a_waic.stan**: Staying time model that uses a lognormal distribution and includes only an intercept
  - **STAY_lnm_cens_ar_mwaic.stan**: Staying time model that uses a lognormal distribution and includes an intercept and a random station effect
  - **STAY_lnm_cens_aXb_waic.stan**: Staying time model that uses a lognormal distribution and includes covariates
- **STAY_lnm_cens_aXbr_mwaic.stan**: Staying time model that uses a lognormal distribution and includes covariates and a random station effect
- **STAY_wbl_cens_a_waic.stan**: Staying time model that uses a Weibull distribution and includes only an intercept
- **STAY_wbl_cens_ar_mwaic.stan**: Staying time model that uses a Weibull distribution and includes an intercept and a random station effect
- **STAY_wbl_cens_aXb_waic.stan**: Staying time model that uses a Weibull distribution and includes covariates
- **STAY_wbl_cens_aXbr_mwaic.stan**: Staying time model that uses a Weibull distribution and includes covariates and a random station effect

➢ ‘giant_rat’ folder: stan files used in pouch rat analyses

❖ ‘rest’ folder: stan files used in density estimation

- **REST_negb_a_lnm_aXb.stan**: REST model that uses negative binomial and lognormal distributions and includes covariates of the staying time
- **REST_negb_aXb_lnm_aXb.stan**: REST model that uses negative binomial and lognormal distributions and includes covariates of the staying time and the density
- **REST_negb_aXb_lnm_aXb_pred.stan**: REST model used for the prediction of the optimal model

❖ ‘stay’ folder: stan files used in staying time estimation

- **STAY_exp_cens_a_waic.stan**
- **STAY_exp_cens_ar_mwaic.stan**
- **STAY_exp_cens_aXb_waic.stan**
- **STAY_exp_cens_aXbr_mwaic.stan**
- **STAY_gma_cens_a_waic.stan**
- **STAY_gma_cens_ar_mwaic.stan**
- **STAY_gma_cens_aXb_waic.stan**
- **STAY_gma_cens_aXbr_mwaic.stan**
- **STAY_lnm_cens_a_waic.stan**
- **STAY_lnm_cens_ar_mwaic.stan**
- **STAY_lnm_cens_aXb_waic.stan**
- **STAY_lnm_cens_aXbr_mwaic.stan**
- **STAY_wbl_cens_a_waic.stan**
- **STAY_wbl_cens_ar_mwaic.stan**
- **STAY_wbl_cens_aXb_waic.stan**
- **STAY_wbl_cens_aXbr_mwaic.stan**

➢ ‘mass’ folder: stan files for the body mass analysis

- **MASS_lnm_porcup_waic.stan**: Body mass model using a lognormal distribution (used only for the porcupine analysis)
- **MASS_lnm_waic.stan**: Body mass model using a lognormal distribution
- **MASS_lnm_porcup_waic.stan**: Body mass model using a lognormal distribution (used only for the porcupine analysis)
- **MASS_norm_waic.stan**: Body mass model using a normal distribution

➢ 'peter_d' folder: stan files used in Peters’s duiker analyses
  ❧ ‘rest’ folder: stan files used in density estimation
    - **REST2_negb_a_wbl_a.stan**: REST model that uses negative binomial and Weibull distributions and includes only intercepts
    - **REST_negb_aXb_wbl_a.stan**: REST model that uses negative binomial and Weibull distributions and includes covariates of the density
    - **REST_negb_aXb_wbl_a_pred.stan**: REST model used for the prediction of the optimal model

➢ ‘stay’ folder: stan files used in staying time estimation
  - **STAY2_exp_cens_a_waic.stan**
  - **STAY2_exp_cens_ar_mwaic.stan**
  - **STAY2_exp_cens_aXb_waic.stan**
  - **STAY2_exp_cens_aXbr_mwaic.stan**
  - **STAY2_gma_cens_a_waic.stan**
  - **STAY2_gma_cens_ar_mwaic.stan**
  - **STAY2_gma_cens_aXb_waic.stan**
  - **STAY2_gma_cens_aXbr_mwaic.stan**
  - **STAY2_lnm_cens_a_waic.stan**
  - **STAY2_lnm_cens_ar_mwaic.stan**
  - **STAY2_lnm_cens_aXb_waic.stan**
  - **STAY2_lnm_cens_aXbr_mwaic.stan**
  - **STAY2_wbl_cens_a_waic.stan**
  - **STAY2_wbl_cens_ar_mwaic.stan**
  - **STAY2_wbl_cens_aXb_waic.stan**
  - **STAY2_wbl_cens_aXbr_mwaic.stan**

➢ ‘porcup’ folder: stan files used in porcupine analyses
  ❧ ‘rest’ folder: stan files used in density estimation
    - **REST4_negb_a_lnm_a.stan**: REST model that uses negative binomial and lognormal distributions and includes only intercepts
    - **REST4_negb_aXb_lnm_a.stan**: REST model that uses negative binomial and lognormal distributions and includes covariates of the density
    - **REST4_negb_aXb_lnm_a_pred.stan**: REST model used for the prediction of the optimal model

  ❧ ‘stay’ folder:
    - **STAY4_exp_cens_a_waic.stan**: Staying time model that uses an exponential distribution and includes only an intercept
- **STAY4_exp_cens_ar_mwaic.stan**: Staying time model that uses an exponential distribution and includes an intercept and a random station effect
- **STAY4_exp_cens_aXb_waic.stan**: Staying time model that uses an exponential distribution and includes covariates
- **STAY4_exp_cens_aXbr_mwaic.stan**: Staying time model that uses an exponential distribution and includes covariates and a random station effect
- **STAY4_gma_cens_a_waic.stan**: Staying time model that uses a gamma distribution and includes only an intercept
- **STAY4_gma_cens_ar_mwaic.stan**: Staying time model that uses a gamma distribution and includes an intercept and a random station effect
- **STAY4_gma_cens_aXb_waic.stan**: Staying time model that uses a gamma distribution and includes covariates
- **STAY4_gma_cens_aXbr_mwaic.stan**: Staying time model that uses a gamma distribution and includes covariates and a random station effect
- **STAY4_lnm_cens_a_waic.stan**: Staying time model that uses a lognormal distribution and includes only an intercept
- **STAY4_lnm_cens_ar_mwaic.stan**: Staying time model that uses a lognormal distribution and includes an intercept and a random station effect
- **STAY4_lnm_cens_aXb_waic.stan**: Staying time model that uses a lognormal distribution and includes covariates
- **STAY4_lnm_cens_aXbr_mwaic.stan**: Staying time model that uses a lognormal distribution and includes covariates and a random station effect
- **STAY4_wbl_cens_a_waic.stan**: Staying time model that uses a Weibull distribution and includes only an intercept
- **STAY4_wbl_cens_ar_mwaic.stan**: Staying time model that uses a Weibull distribution and includes an intercept and a random station effect
- **STAY4_wbl_cens_aXb_waic.stan**: Staying time model that uses a Weibull distribution and includes covariates
- **STAY4_wbl_cens_aXbr_mwaic.stan**: Staying time model that uses a Weibull distribution and includes covariates and a random station effect