Description of the datasets:

- Dataset: vole_data_cayol_updated.csv: 557 observations of 38 variables: Voles captured in urban and sub-urban forests in Central Finland in 2012, individual measurements.

- Dataset: model_pathogen_data_cayol: 304 observations of 36 variables. Voles captured in urban and sub-urban forests in Central Finland in 2012, individual measurements and infection with Borrelia burgdorferi sensu lato, Anaplasma phagocytophilum and Babesia microti.

- Dataset: pop_data_cayol: 65 observations of 25 variables. Population level data from ticks and voles captured in urban and sub-urban forests in Central Finland in 2012.

Description of the variables:

- # AP: Factor with 2 levels: "0": absence of infection with Anaplasma phagocytophilum, "1": presence of infection with Anaplasma phagocytophilum
- # BA: Factor with 2 levels: "0": absence of infection with Borrelia burgdorferi sensu lato, "1": presence of infection with Borrelia burgdorferi sensu lato
- # BM: Factor with 2 levels: "0": absence of infection with Babesia microti, "1": presence of infection with Babesia microti
- # BV_line, #BV: Numeric, total number of bank voles trapped on a given site during the trapping session
- # CODE, # IND: Factor with 398 levels. Individual identification
- # cWeight: centred value of the body mass
- # Date_A: Factor with 39 levels. Trapping date
- # Dist, #m: Numeric, the distance flagged in the vegetation for the collection of questing ticks during a given session on a given trapping site (in meters)
- # DNA: Factor with 360 levels: DNA sample identification
- # DNABlood: Factor with 384 levels: blood sample identification number
- # gps: Factor, GPS coordinates of the trapping Sites
- # Head: numeric: individuals head measurement (mm)
- # hum_pop_dens: Numeric, human population density in a circular area of 1 km radius centred on each trapping area
- # I_ric_F: Number of Ixodes ricinus female removed from the captured bank vole
- # I_ric_L: Number of Ixodes ricinus larvae removed from the captured bank vole
- # I_ric_M: Number of Ixodes ricinus male removed from the captured bank vole
- # I_ric_N: Number of Ixodes ricinus nymph removed from the captured bank vole
- # I_tri_F: Number of Ixodes trianguliceps female removed from the captured bank vole
- # I_tri_L: Integer: Number of Ixodes trianguliceps larvae removed from the captured bank vole
- # I_tri_M: Number of Ixodes trianguliceps male removed from the captured bank vole
# _I_tri_N_: Number of *Ixodes trianguliceps* nymphs removed from the captured bank vole
# IRA100: Numeric, number of *I. ricinus* adults (male and females) found in the vegetation over 100 meters of flagging at a given site during a given trapping session
# IRF: Numeric, the total number of *I. ricinus* female collected from the vegetation while dragging the over #Dist meters during a given session on a given trapping site
# IRFSite: Numeric, the total number of female of *I. ricinus* found in the vegetation of the given site other the entire study period
# IRL: Numeric, the total number of *I. ricinus* larvae collected from the vegetation while dragging the over # Dist meters during a given session on a given trapping site
# IRL_vo: Numeric, total number of *I. ricinus* larvae found from voles at a given site during a given trapping session
# IRL_vorel: Numeric, Relative number of larvae of *I. ricinus* infesting voles at a given site during a given trapping session
# IRL100: Numeric, number of *I. ricinus* larvae found in the vegetation over 100 meters of flagging at a given site during a given trapping session
# IRM: Numeric, the total number of *I. ricinus* male collected from the vegetation while dragging the over # Dist meters during a given session on a given trapping site
# IRMSite: Numeric, the total number of male of *I. ricinus* found in the vegetation of the given site other the entire study period
# IRN: Numeric, the total number of *I. ricinus* nymphs collected from the vegetation while dragging the over # Dist meters during a given session on a given trapping site
# IRN_vo: Numeric, total number of *I. ricinus* nymphs found from voles at a given site during a given trapping session
# IRN_vorel: Numeric, Relative number of larvae and nymphs of *I. ricinus* infesting voles at a given site during a given trapping session
# IRN100: Numeric, number of *I. ricinus* nymphs found in the vegetation over 100 meters of flagging at a given site during a given trapping session
# IRNSite: Numeric, the total number of nymph of *I. ricinus* found in the vegetation of the given site other the entire study period
# IRTOT: Numeric, the total number of *I. ricinus* found in the vegetation of the given site other the entire study period
# LABBORN: Factor with 2 levels “1”= individual born in lab (mother was taken in the lab where she gave birth), “0” = individual born in wild
# lat: Numeric, latitude of the trapping sites
# long: Numeric, longitude of the trapping sites
# name: Factor, name of the trapping sites
# Neg_BA: Numeric, total number of vole uninfected with B. burgdorferi sensu lato at a given site during a given trapping session
# rank_capt: Numeric: capture rank of the bank vole
# PA_ric: Factor with 2 levels: “0”: absence of *Ixodes ricinus*, “1”: presence of *Ixodes ricinus* on the captured bank vole
# PA_ricF: Factor with 2 levels: “0”: absence of female of *Ixodes ricinus*, “1”: presence of female of *Ixodes ricinus* on the captured bank vole
# PA_ricL: Factor with 2 levels: “0”: absence of larvae of *Ixodes ricinus*, “1”: presence of larvae of *Ixodes ricinus* on the captured bank vole
# PA_ricM: Factor with 2 levels: “0”: absence of male of *Ixodes ricinus*, “1”: presence of male of *Ixodes ricinus* on the captured bank vole
# PA_ricN: Factor with 2 levels: “0”: absence of nymph of *Ixodes ricinus*, “1”: presence of nymph of *Ixodes ricinus* on the captured bank vole
# PA_ticks: Factor with 2 levels: “1”= presence of ticks, “0” = absence of ticks on the captured bank vole
# PA_tri: Factor with 2 levels: “0”: absence of *Ixodes trianguliceps*, “1”: presence of *Ixodes trianguliceps* on the captured bank vole
# PA_triF: Factor with 2 levels: "0": absence of female of Ixodes trianguliceps, "1": presence of female of Ixodes trianguliceps on the captured bank vole
# PA_triL: Factor with 2 levels: "0": absence of larvae of Ixodes trianguliceps, "1": presence of larvae of Ixodes trianguliceps on the captured bank vole
# PA_triM: Factor with 2 levels: "0": absence of male of Ixodes trianguliceps, "1": presence of male of Ixodes trianguliceps on the captured bank vole
# PA_triN: Factor with 2 levels: "0": absence of nymph of Ixodes trianguliceps, "1": presence of nymph of Ixodes trianguliceps on the captured bank vole
# Pos_BA: Numeric, total number of vole infected with B. burgdorferi sensu lato at a given site during a given trapping session
# ric_Ad_N: Numeric, total number of I. ricinus adult and nymphs found in the vegetation at a given site during a given trapping session
# ric_rel: Numeric, Relative number of I. ricinus infesting voles at a given site during a given trapping session
# Session: Factor with 5 levels: Trapping session from May to October
# Sex: Factor with 2 levels: "1"= female, "2" = male
# Site, #fSite: Factor with 16 levels: trapping locations
# Species: Factor with 1 level "M.gla": Study species Myodes glareolus
# ticks_tot: Total number of ticks removed from the captured bank vole
# tot_wat: Numeric, total open water coverage in a circular area of 1 km radius (3.14 km2) centred on each trapping area
# Total_ric: Number of Ixodes ricinus removed from the captured bank vole
# Total_tri: Total number of Ixodes trianguliceps observed from the captured bank vole
# Treatment_Food, # Treatment: Factor with 2 levels: "0": no food supplementation in the trapping area, "1" food supplementation in the trapping area
# trial: Numeric, the total number of larvae of I. trianguliceps found on bank voles of a given site other the entire study period
# trial_rel: Numeric, relative number of larvae of I. trianguliceps infesting voles at a given site during a given trapping session
# trialN: Numeric, the total number of larvae and nymphs of I. trianguliceps found on bank voles of a given site other the entire study period
# trialN_rel: Numeric, relative number of larvae and nymph of I. trianguliceps infesting voles at a given site during a given trapping session
# urban: Factor with 2 levels, "1": Site located in Urban area, "0": Site located in non-urban area
# Weight: numeric: individual body mass
# IRLSite: Numeric, the total number of larvae of I. ricinus found in the vegetation of the given site other the entire study period