## 1 Poisson

 $CNT \sim lon + lat + area + year + month + altiMean + altiSD + dewtem$ perature + temperature + potential evaporation + solar radiation + thermal radiation + pressure + evaporation + precipitation + humidity + Wspeed + Cropland + Vegetation Bare areas + Tree broad leave devergreen + Tree broad leaved deciduous + Tree needle leave deciduous + Tree mixed + Grassland + Shrubs + Urban + Water and flooded areas + temperature : precipitation + temperature: solar radiation + temperature: thermal radiation + temperature : Wspeed + evaporation : precipitation + potential evaporation : precipitation + month: Tree broad leaved deciduous + month: Tree needle leave deciduous + Tree broad leave d evergreen: Shrubs + Tree broad leaved deciduous: Shrubs + Shrubs : Tree needle leave evergreen + Tree needle leave deciduous : Shrubs + Tree mixed : Shrubs + Tree broad leave devergreen : Grassland + Tree broad leaved deciduous : Grassland + Grassland : Tree needle leave evergreen + Tree needle leave deciduous: Grassland + Tree mixed: Grassland + Tree broad leave devergreen : Urban + Tree broad leaved deciduous : Urban + Urban : Tree needle leave evergreen + Tree needle leave deciduous : Urban + Shrubs: Urban + Grassland: Urban + solar radiation: Shrubs + thermal radiation: Shrubs + temperature: Shrubs + solar radiation: Grassland + thermal radiation: Grassland + temperature: Grassland

## 2 Binomial

 $CNT \sim lon + area + year + month + altiSD + dew temperature + tempera$ ture + potential evaporation + solar radiation + thermal radiation + pressure + evaporation + precipitation + humidity + Wspeed + Cropland + Vegetation Bare areas + Tree broadleaved evergreen + Tree broadleaved deciduous + Tree needleleave deciduous + Tree mixed + Grassland + Shrubs + Urban + Water and flooded areas + Tree needleleave evergreen + lat + temperature:precipitation + temperature:solar radiation + temperature:thermal radiation + temperature: Wspeed + evaporation: precipitation + potential evaporation:precipitation + month: Tree broadleaved deciduous + month: Tree needleleave deciduous + Tree broadleaved evergreen: Shrubs + Tree broadleaved deciduous: Shrubs + Shrubs: Tree needleleave evergreen + Tree needleleave deciduous: Shrubs + Tree mixed: Shrubs + Tree broadleaved evergreen: Grassland + Tree broadleaved deciduous: Grassland + Grassland: Tree needleleave evergreen + Tree needleleave deciduous: Grassland + Tree mixed: Grassland + Tree broadleaved evergreen: Urban + Urban: Tree needleleave evergreen + Tree needleleave deciduous: Urban + Tree mixed: Urban + Shrubs: Urban + Grassland: Urban + temperature: Shrubs + solar radiation: Grassland + thermal radiation: Grassland + temperature: Grassland + solar radiation: Shrubs

## 3 Negative Binomial

 $CNT \sim lon + lat + area + year + month + altiMean + altiSD + dew tem$ perature + temperature + potential evaporation + solar radiation + thermal radiation + pressure + evaporation + precipitation + humidity + Wspeed + Cropland + Vegetation Bare areas + Tree broadleaved evergreen + Tree  $broadleaved\ deciduous + Tree\ needleleave\ deciduous + Tree\ mixed + Grassland$ + Shrubs + Urban + Water and flooded areas + temperature:precipitation + temperature:solar radiation + temperature:thermal radiation + temperature: Wspeed + evaporation: precipitation + potential evaporation: precipitation + month: Tree broadleaved deciduous + month: Tree needleleave deciduous + Tree broadleaved evergreen: Shrubs + Tree broadleaved deciduous: Shrubs + Shrubs: Tree needleleave evergreen + Tree needleleave deciduous: Shrubs + Tree mixed: Shrubs + Tree broadleaved evergreen: Grassland +Tree broadleaved deciduous: Grassland + Grassland: Tree needleleave evergreen + Tree needleleave deciduous: Grassland + Tree mixed: Grassland + Tree broadleaved evergreen: Urban + Tree broadleaved deciduous: Urban + Urban: Tree needleleave evergreen + Tree needleleave deciduous: Urban + Shrubs: Urban + Grassland: Urban + solar radiation: Shrubs + thermal radiation: Shrubs + temperature: Shrubs + solar radiation: Grassland + thermal radiation: Grassland + temperature: Grassland