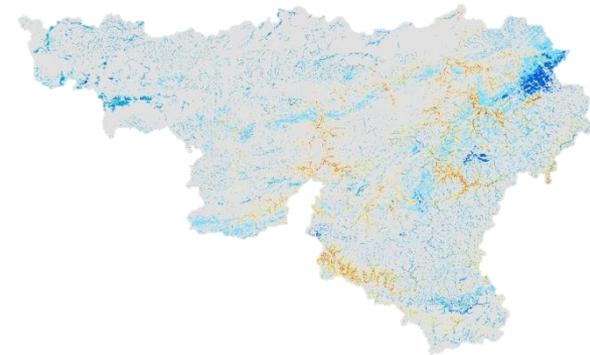
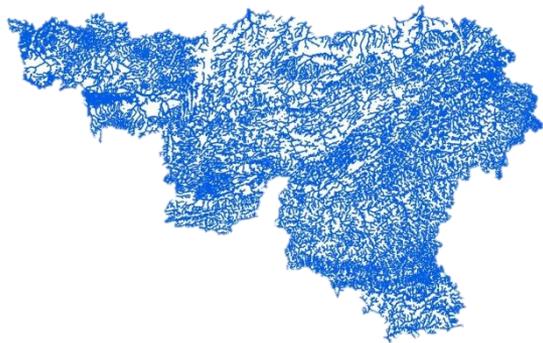


# Combining remote sensing and ancillary data to improve species distribution models

Jessica Delangre, Julien Radoux, Floriane Jacquemin, Marc Dufrêne



# Used data

- Ecotopes: homogeneous landscape units delineated based on remote sensing data



- Environmental attributes: land cover, topography, climate

# Research question

- Which ancillary data should be added to improve the efficiency of the ecotopes database for species distribution modelling?



Smits Q.  
*Lycaena dispar*



Dufréne M.  
*Lycaena helle*



Imbaud C.  
*Boloria dia*



Fichefet  
*Podarcis muralis*



Barbier Y.  
*Euphydryas aurinia*



Bohdal J.  
*Turdus pilaris*



Herrero V.  
*Anthus pratensis*



Fichefet Y.  
*Meles meles*

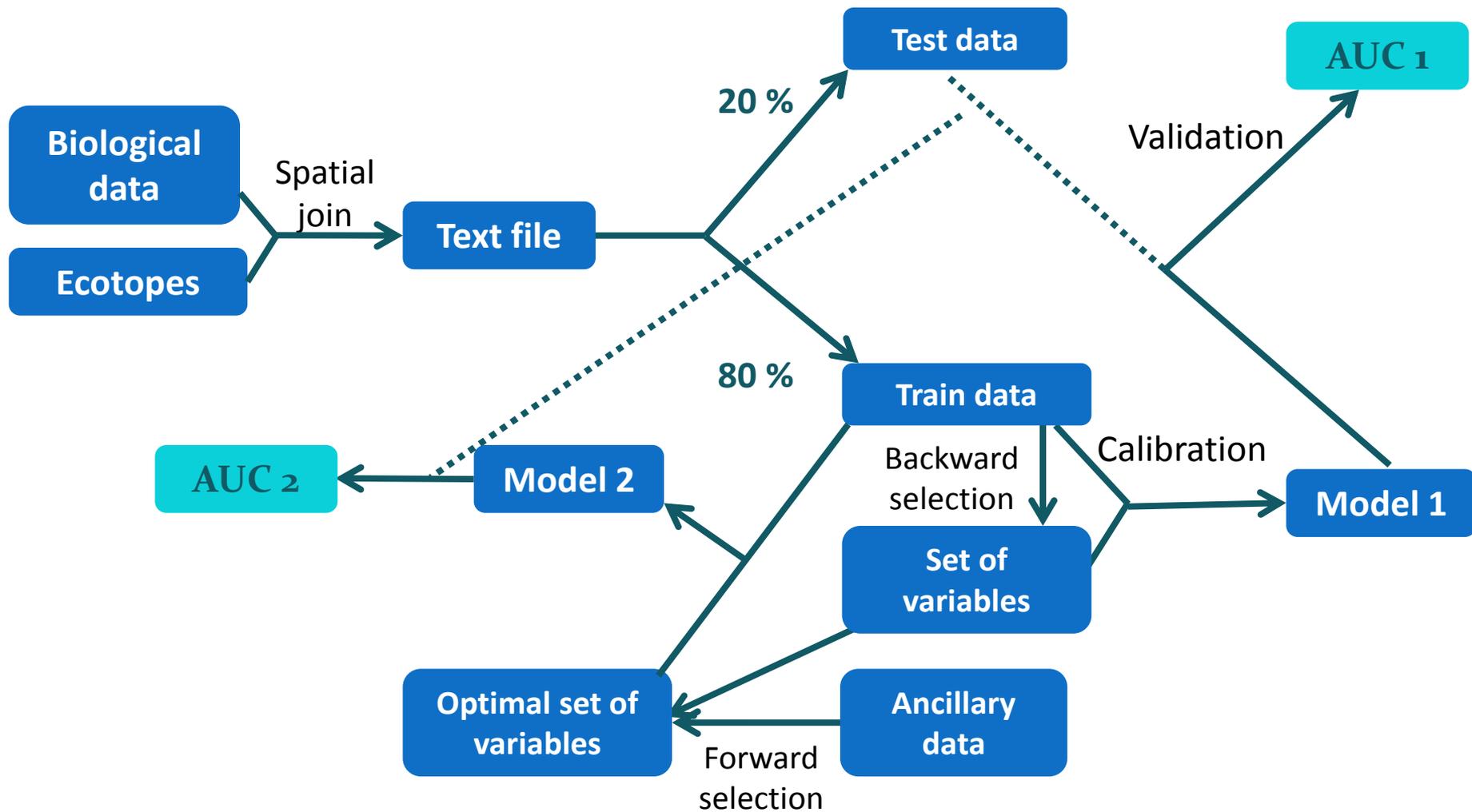


Smits Q.  
*Zootoca vivipara*

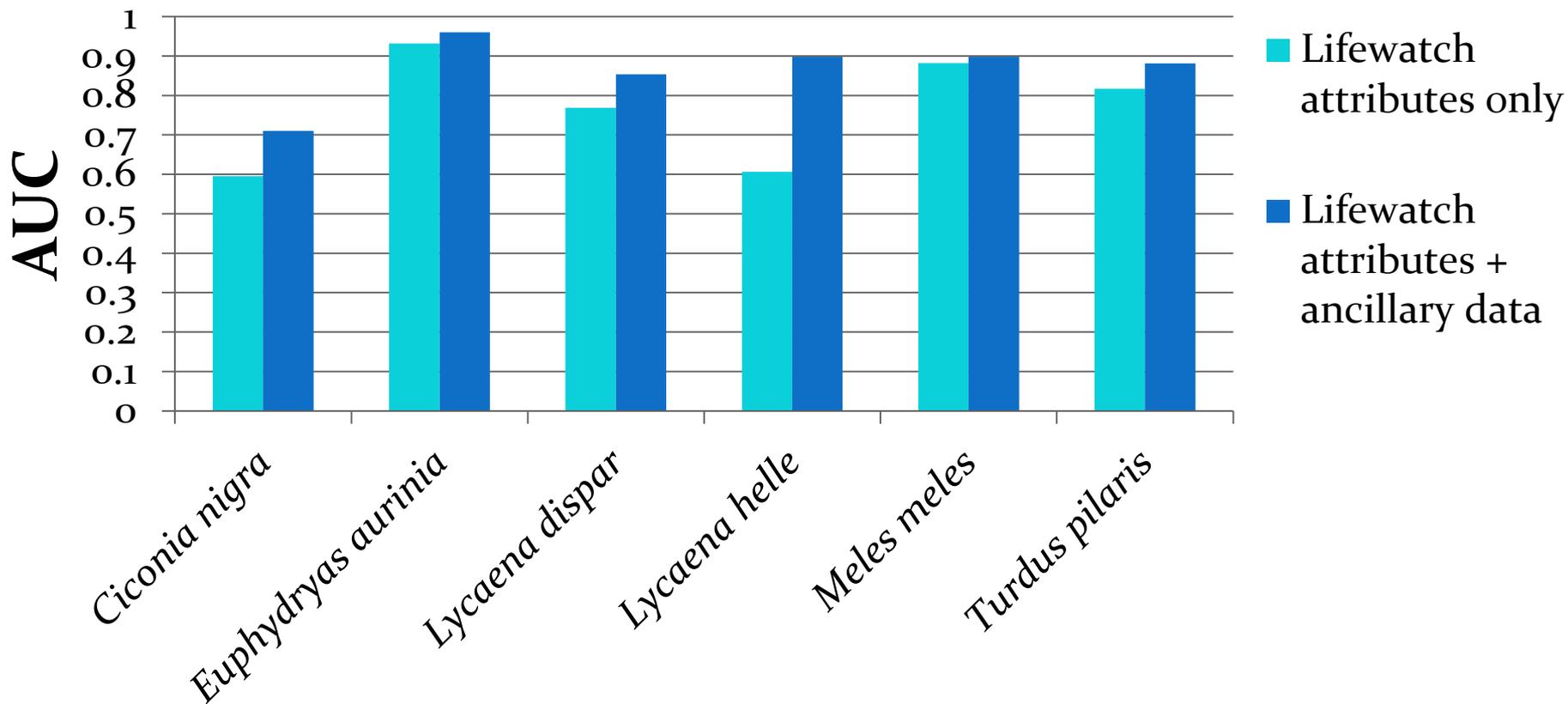


Daly S.  
*Ciconia nigra*

# Workflow



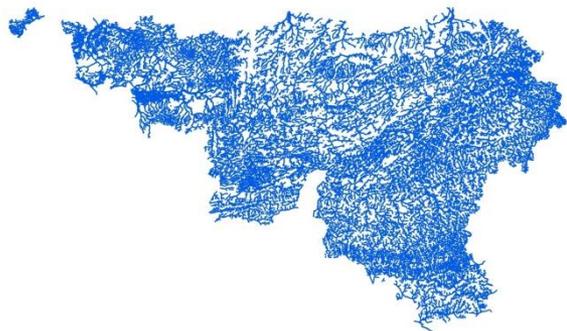
# Outcome



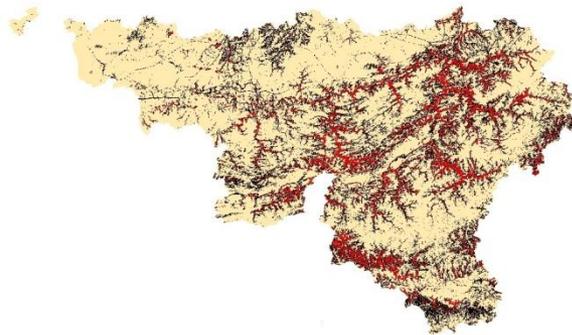
Ancillary data improve model quality for 6 species

# Outcome

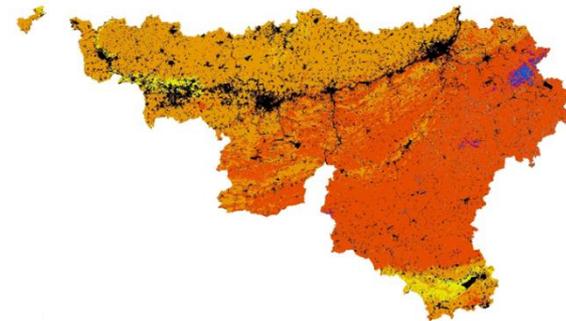
Distance to hydrological network



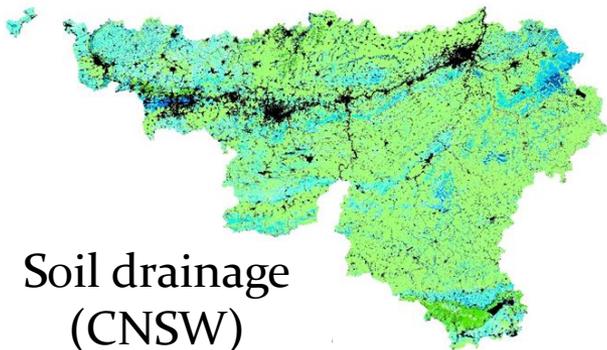
Terrain roughness (MNT ERRUISSOL)



Soil texture (CNSW)



Soil drainage (CNSW)



Soil marginality



should be added to the ecotopes database



**Thanks for your attention**