Lab week 8: building random forest models in R lab

The goal of this week's lab will be to give you some hand on experience building machine learning models in R and building analytical workflows using R scripts. A detailed set of instructions for the lab can be found in the README.md file in the "Week 8/lab" directory. The following table provides the grading criteria for each section of the lab.

Grading rubric:

Step	Total points	Criteria
1-4	0	No points available, these steps are just here to get you up and running.
5	10	2 points: The file can run from either command line or consol and save a random forest model. 2 points: The file successfully runs from the command line 2 points: The file uses the command line arguments to correctly parametrize the model 2 points: The random forest model has the correct structure 2 points: The analysis is repeated for the densities data
6	5	1 point: The files can run from either the terminal or command line 1 point: The files run from the command line 3 point: The files create the plots specified by the prompt and comments in the file
7	5	1 point: Clearly states why the species live in similar or different habitats 1 point: supports the claim with results from the random forest 1 point: provides a clearly stated arguments for the predicted effect of climate change on the species 1 point: supports the claim with results from the random forest 1 point: The analysis can be run from the make file.
8 or 10	5	4 point: the file runs and saves results from the cross-validation test 1 point: the cross-validation tests run in parallel Up to 5 bonus for completing both 8 and 10 correctly
9	10	2 points: Question 1 4 points: Question 2 4 points: Question 3