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	Undergrad 3 Grad students: 1.5	1 points: The file can run from either command line or consol and save a random forest model. 1 points: The file successfully runs from the command line 1 points: The file uses the command line arguments to correctly parametrize the models
6	Undergrad 3 Grad students: 1.5	1 point: The files can run from either the terminal or command line 1 point: The files run from the command line 1 point: The files create the plots specified by the prompt and comments in the file
7	Undergrad: 4 Grad students: 2	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
8 or 10	Undergrad (bonus) Grad students: 2	1point: the file runs and saves results from the cross-validation test 1 point: the cross-validation tests run in parallel Up to 2 bonus for completing both 8 and 10 correctly
9	Undergrad (bonus) Grad students: 3	1 points: Question 1 1 points: Question 2 1 points: Question 3

Notes: Undergraduates are expected to complete sections 1-7 and the remaining are bonus grad students are expected to complete all parts. To ensure the totals add up to 10 points for both grad students and undergraduates sections 5, 6, and 7 will be granted half as much weight to the final score for graduate students as the will be for undergraduates. Grad students will earn the remaining 5 points in sections 8, 9 and 10.