Article:
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Supplementary Information

Table S1. Locality of survey participants. Due to rounding, the totals do not add up to 100%.

Respondent location	% respondents survey 1	% respondents survey 2
UK	84 %	83 %
Europe (but not UK)	6 %	4 %
Africa	0 %	0 %
Australasia	3 %	9 %
North America	4 %	2 %
South America	3 %	2 %
Asia	1 %	0 %
Total Respondents	97	46

Table S2. Occupations of survey participants. Due to rounding, the totals do not add up to 100%.

Respondent Occupation	% respondents survey 1	% respondents survey 2
Higher Education	58 %	76 %
Secondary Education	14 %	4 %
Primary Education	8 %	2 %
Government	6 %	0 %
NGO	6 %	4 %
Policy Development	3 %	0 %
Consultancy	12 %	2 %

Industry	2 %	2 %
Research	18 %	24 %
Post graduate student	12 %	17 %
Undergraduate student	2 %	0 %
Other	10 %	0 %
Total Respondents	97	46

Figures S1-14. Rankings of main categories and subcategories. Rankings were determined by first translating the ordering of issues, applied by each respondent, into numbers by assigning the highest ranked issue a score of n (where n = number of issues in the category), then second ranked allocated n-1 etc. For example, in the main categories, where there were 17 issues, if a respondent ranked “Disconnect between people and nature” first, it was given 17 points. The ***I don’t want to rank below this line*** option was also given a score, even if ranked last and any issues ranked below the **I don’t want to rank below this line** were automatically scored equal last. Scores were then summed for each issue across participants and these totals used to determine the overall ranking with highest scores representing the highest ranked issues. Here they are presented as relative rankings with the highest given a score of 100, and all other rankings listed in proportion to this. Rankings of subcategories not explicitly discussed at the workshop are not included.

Figure S1. Rankings of main categories

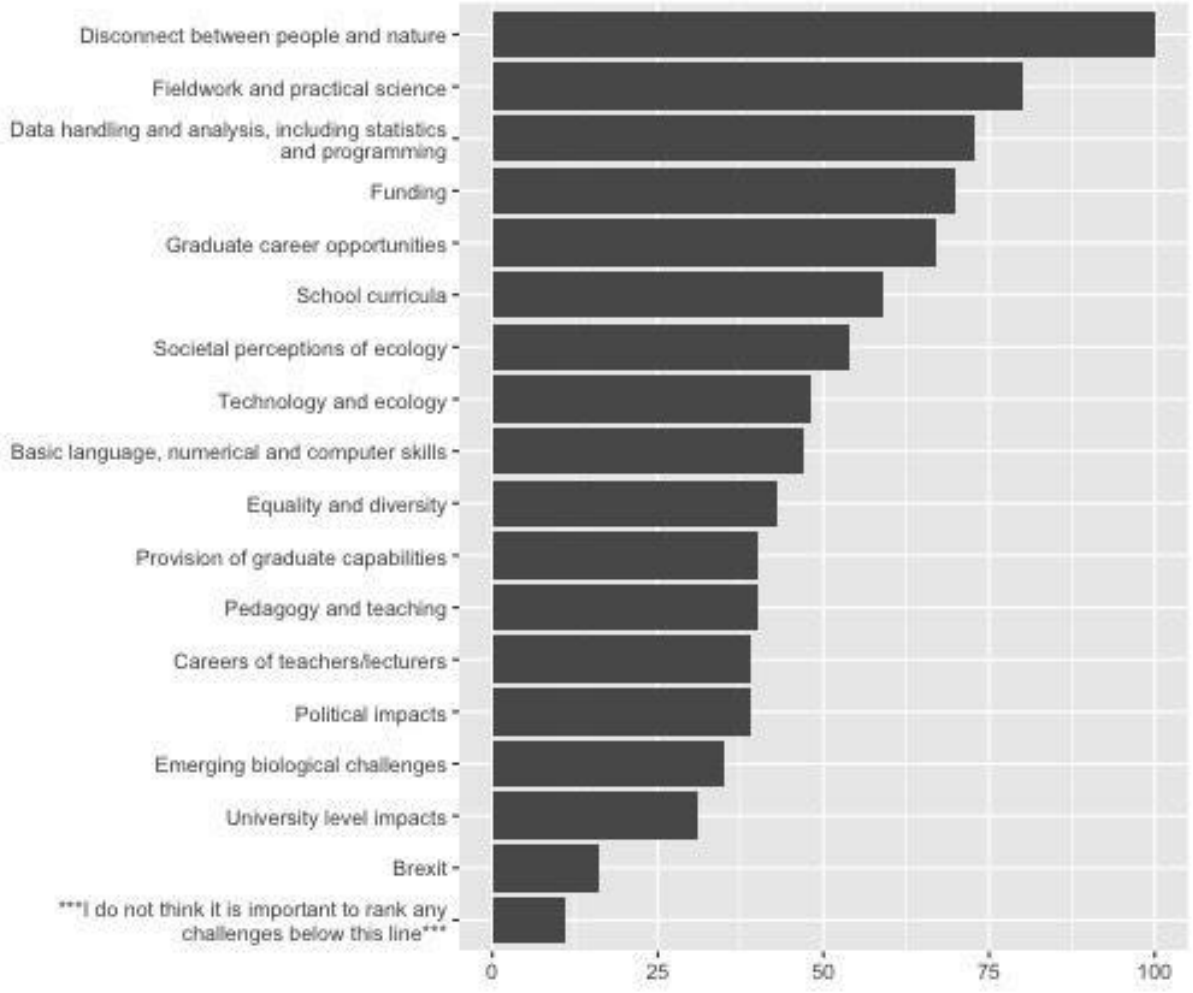

Figure S2. Rankings of issues associated with disconnect between people and nature

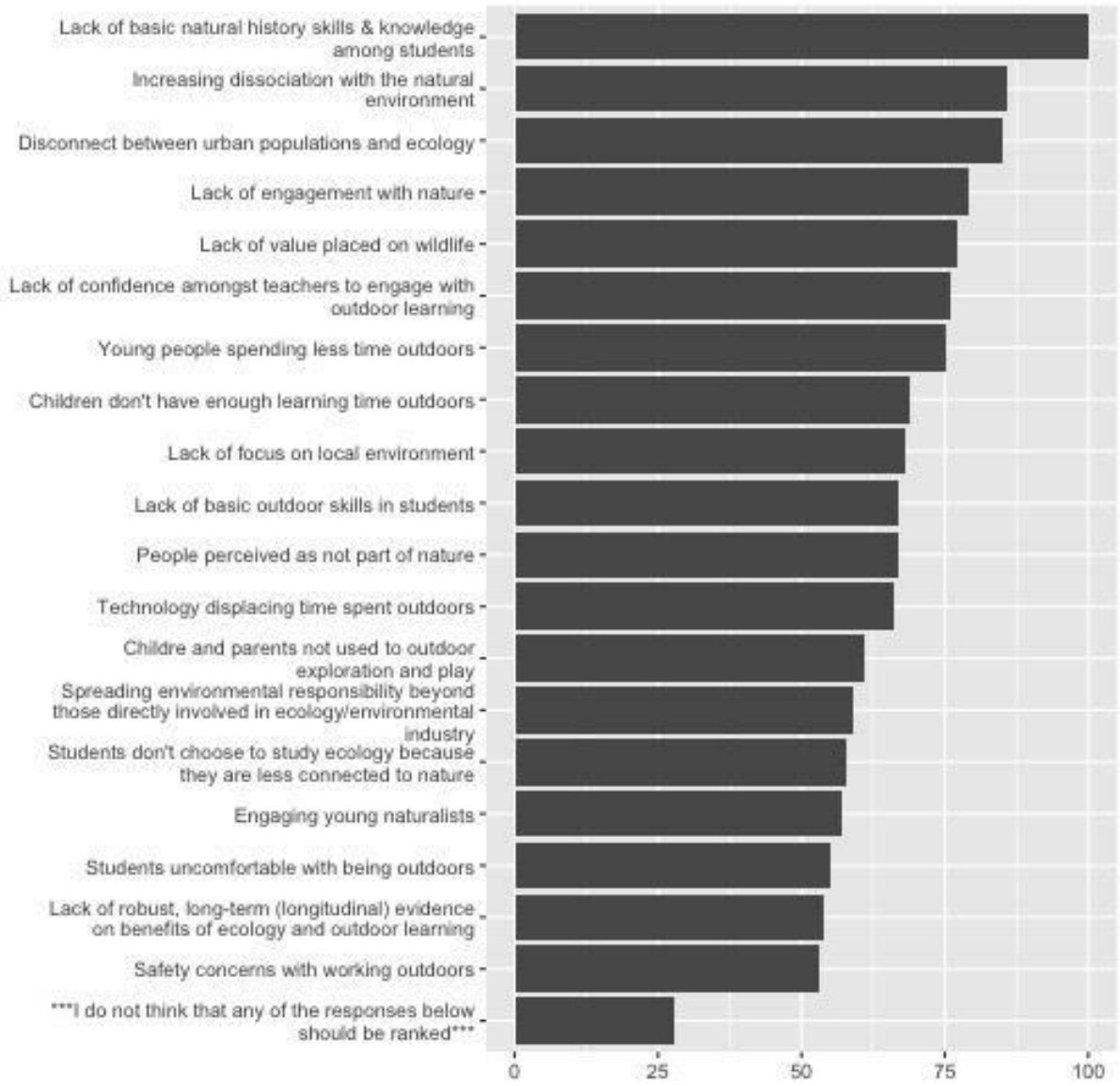

Figure S3. Rankings of issues associated with fieldwork and practical science

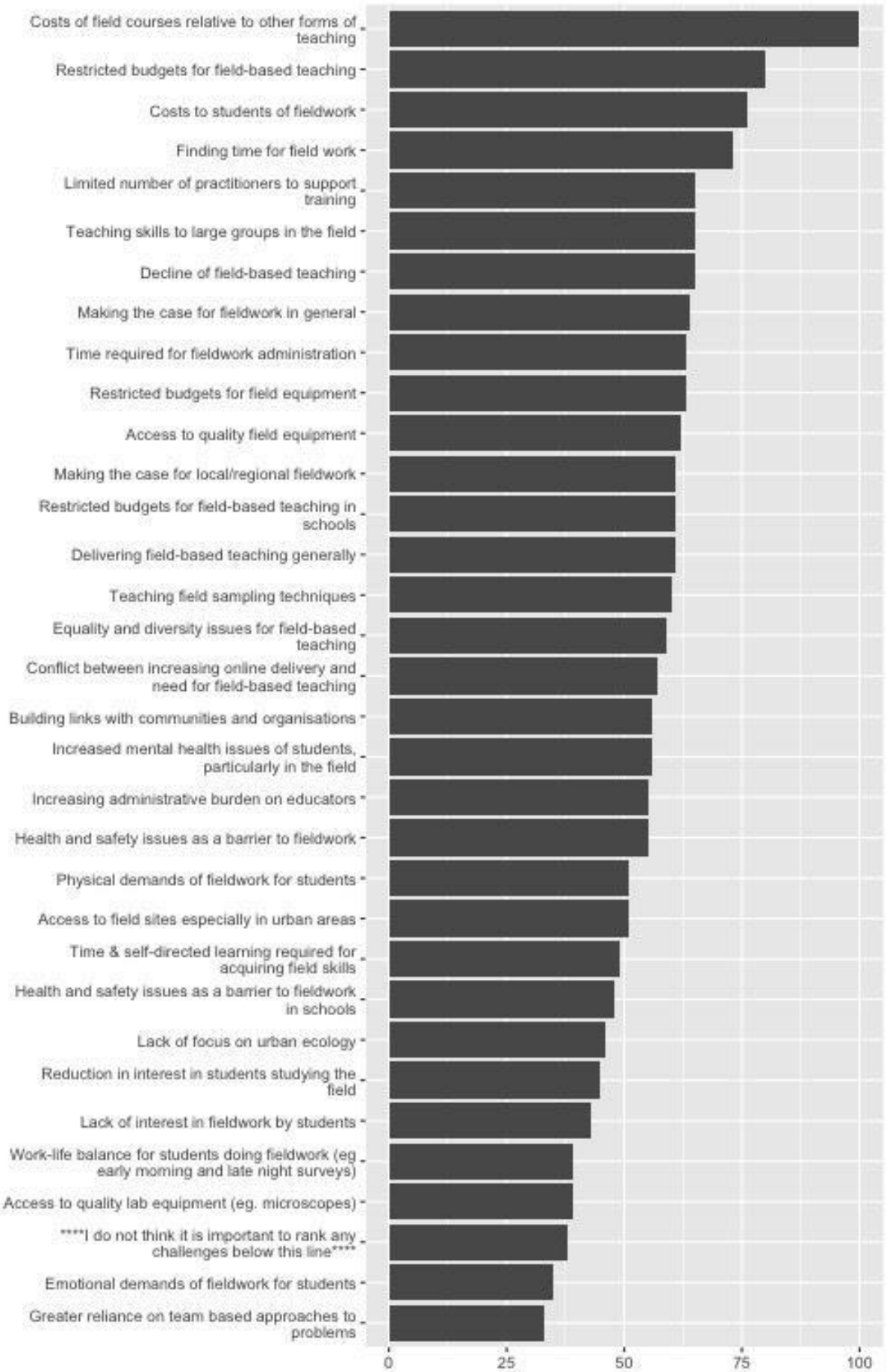
Costs of field courses relative to other forms of teaching
Restricted budgets for field-based teaching
Costs to students of fieldwork
Finding time for field work
Limited number of practitioners to support training
Teaching skills to large groups in the field
Decline of field-based teaching
Making the case for fieldwork in general
Time required for fieldwork administration
Restricted budgets for field equipment
Access to quality field equipment
Making the case for local/regional fieldwork
Restricted budgets for field-based teaching in schools
Delivering field-based teaching generally
Teaching field sampling techniques
Equality and diversity issues for field-based teaching
Conflict between increasing online delivery and need for field-based teaching
Building links with communities and organisations
Increased mental health issues of students, particularly in the field
Increasing administrative burden on educators
Health and safety issues as a barrier to fieldwork
Physical demands of fieldwork for students
Access to field sites especially in urban areas
Time & self-directed learning required for acquiring field skills
Health and safety issues as a barrier to fieldwork in schools
Lack of focus on urban ecology
Reduction in interest in students studying the field
Lack of interest in fieldwork by students
Work-life balance for students doing fieldwork (eg early morning and late night surveys)
Access to quality lab equipment (eg. microscopes)
****I do not think it is important to rank any challenges below this line****
Emotional demands of fieldwork for students
Greater reliance on team based approaches to problems
0
25
50
75
100

Figure S4. Rankings of issues associated with data handling and analysis, including statistics and programming

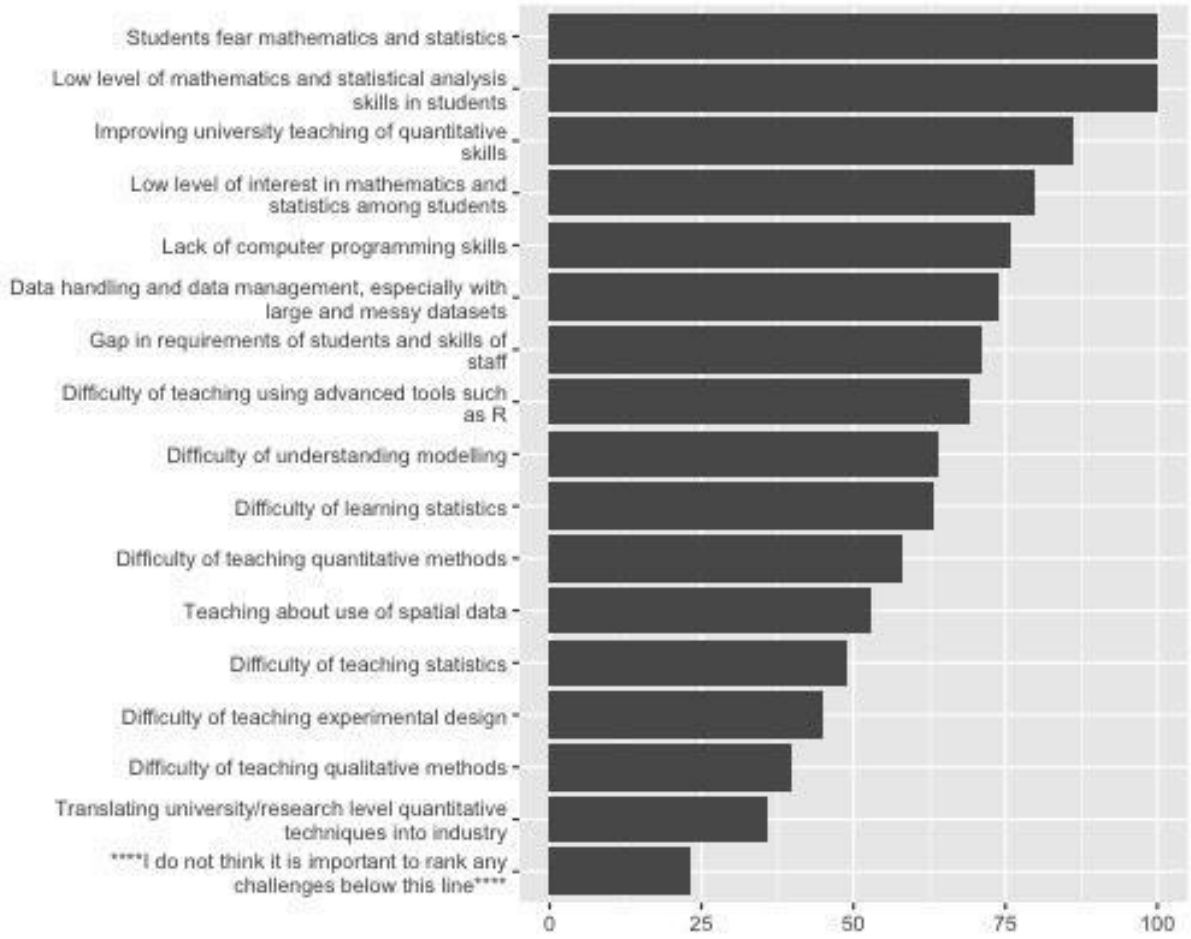

Figure S5. Rankings of issues associated with graduate career opportunities

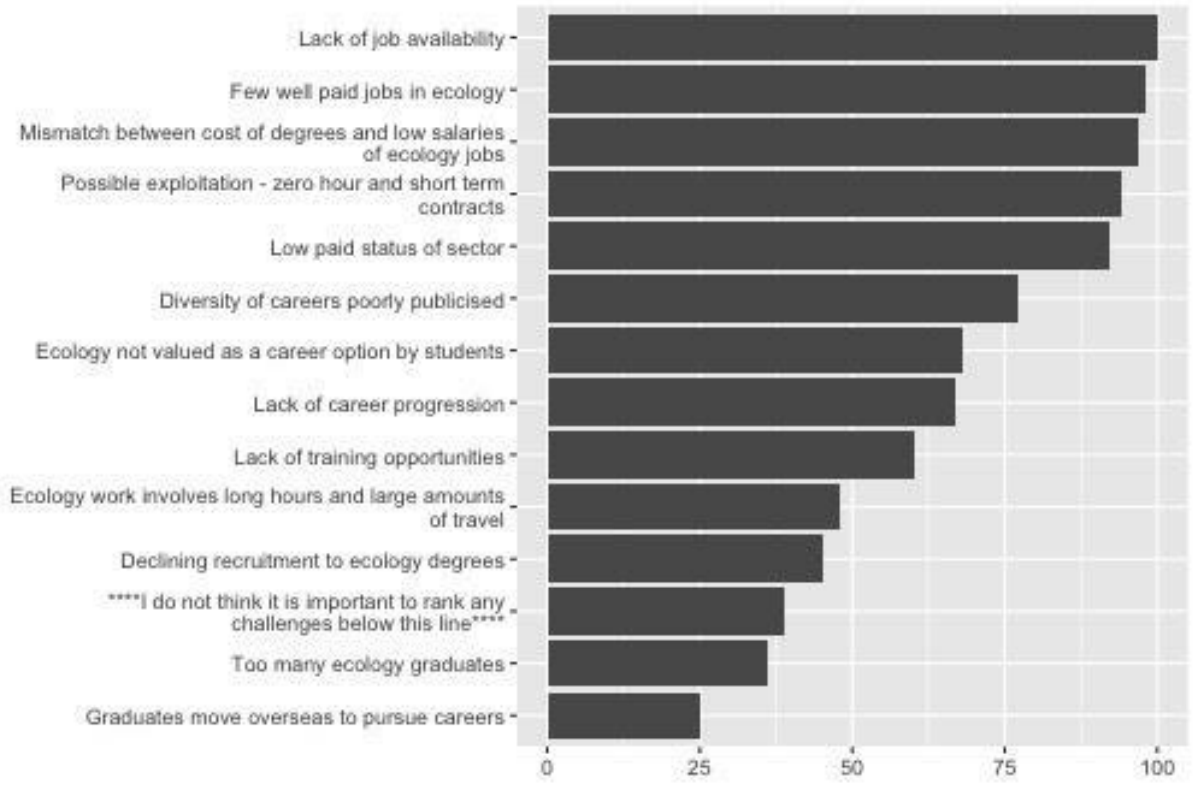

Figure S6. Rankings of issues associated with school curricula

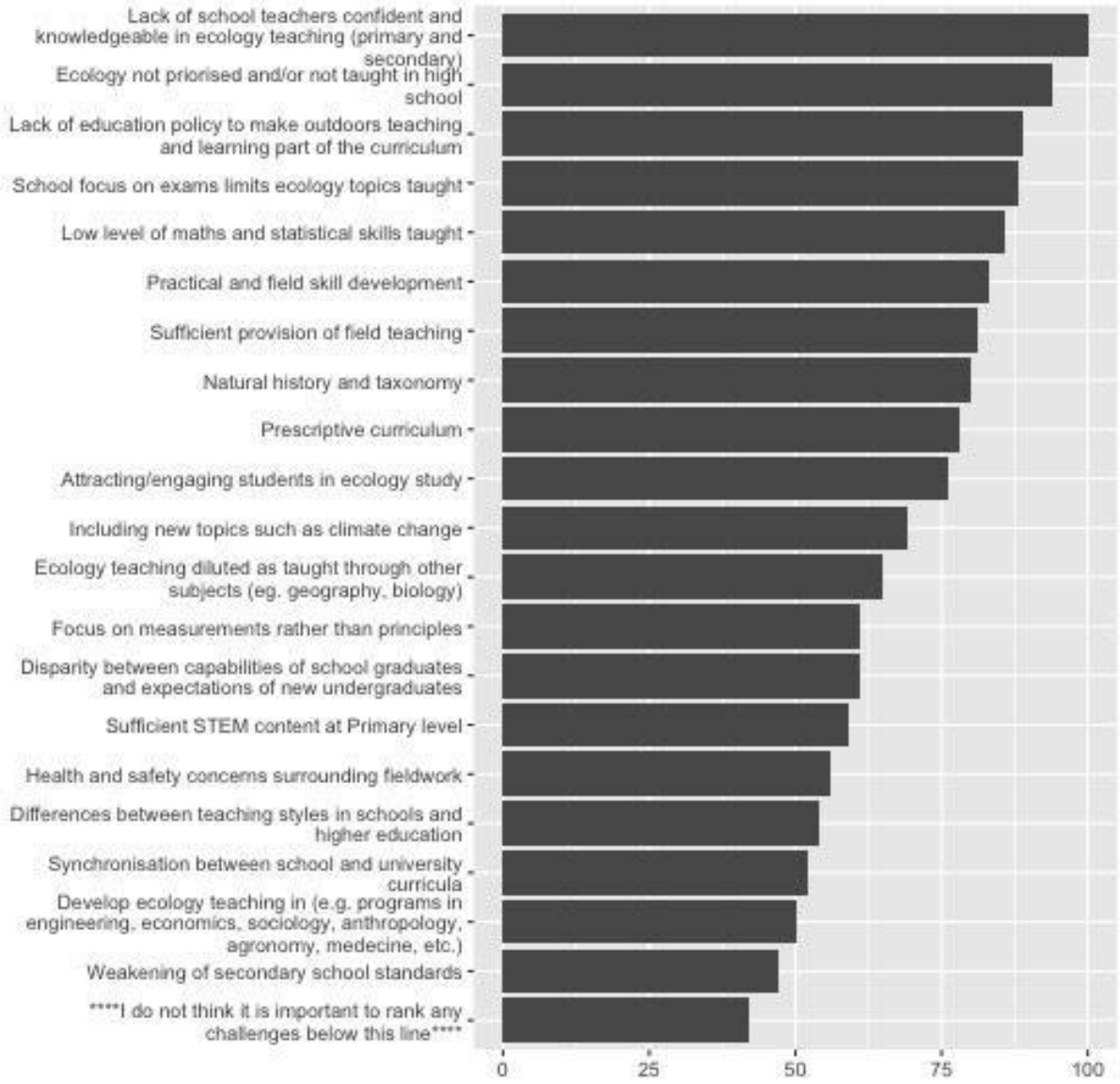

Figure S7. Rankings of issues associated with society perceptions

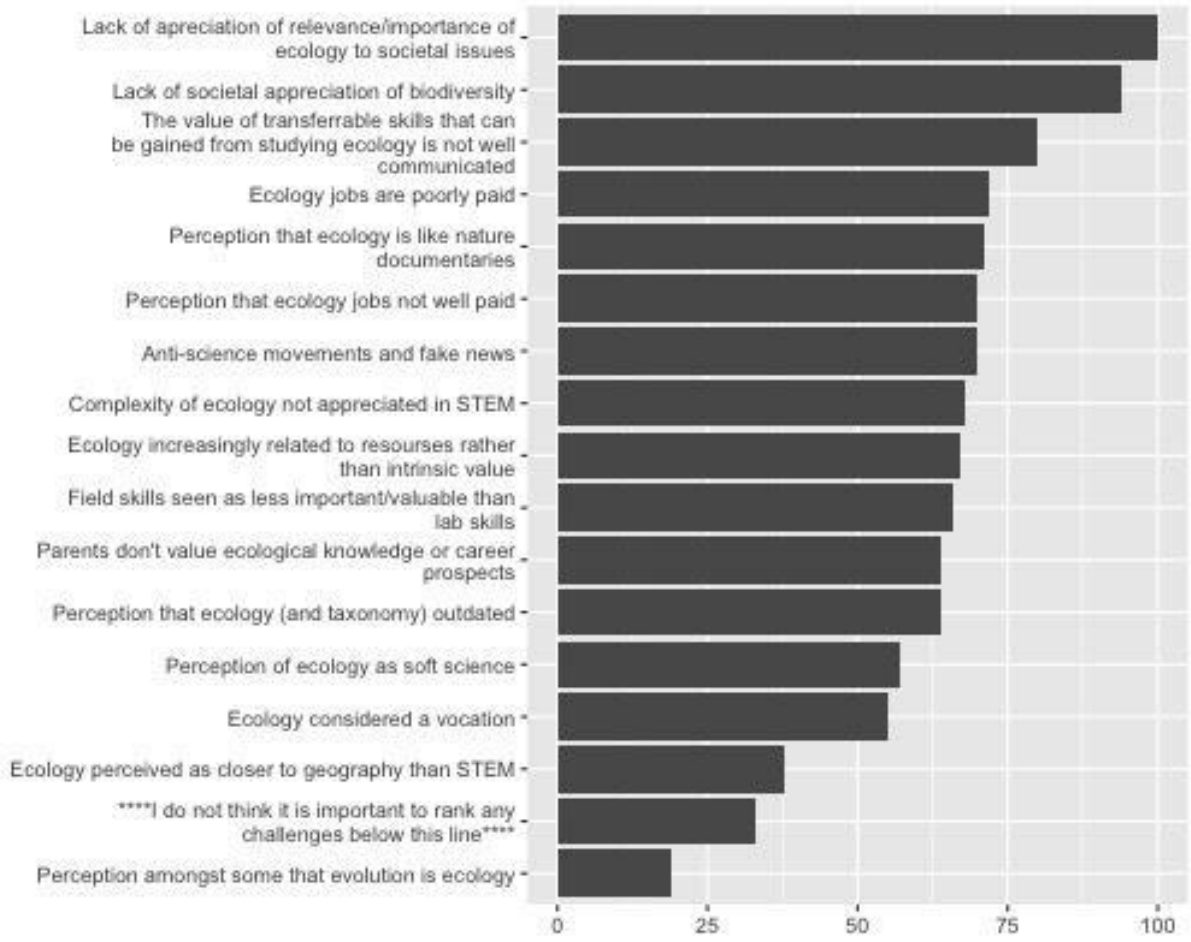

Figure S8. Rankings of issues associated with technology and ecology

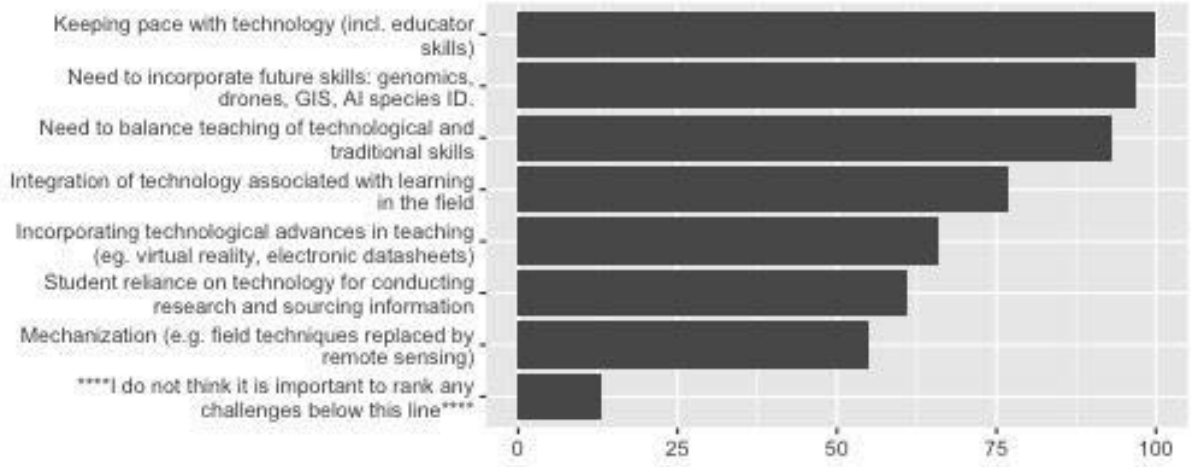

Figure S9. Rankings of issues associated with basic language, numerical and computer skills

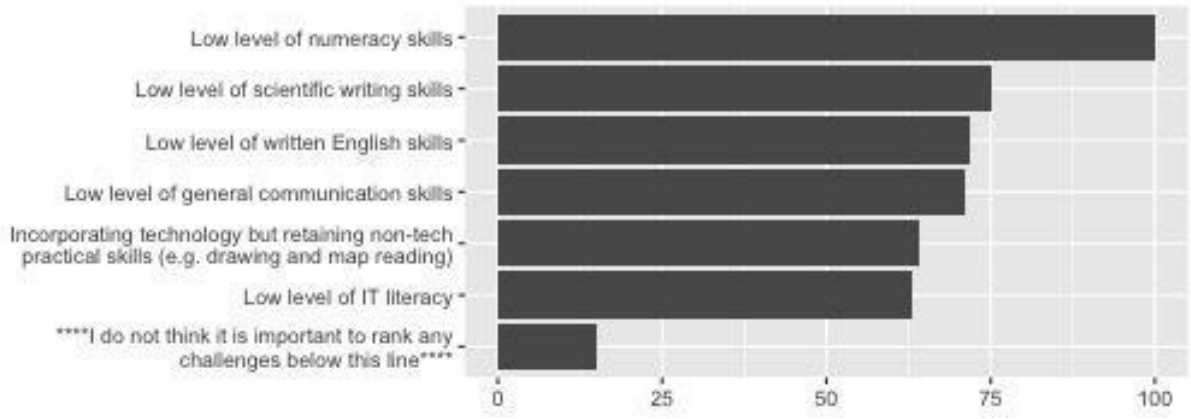

Figure S10. Rankings of issues associated with equality and diversity

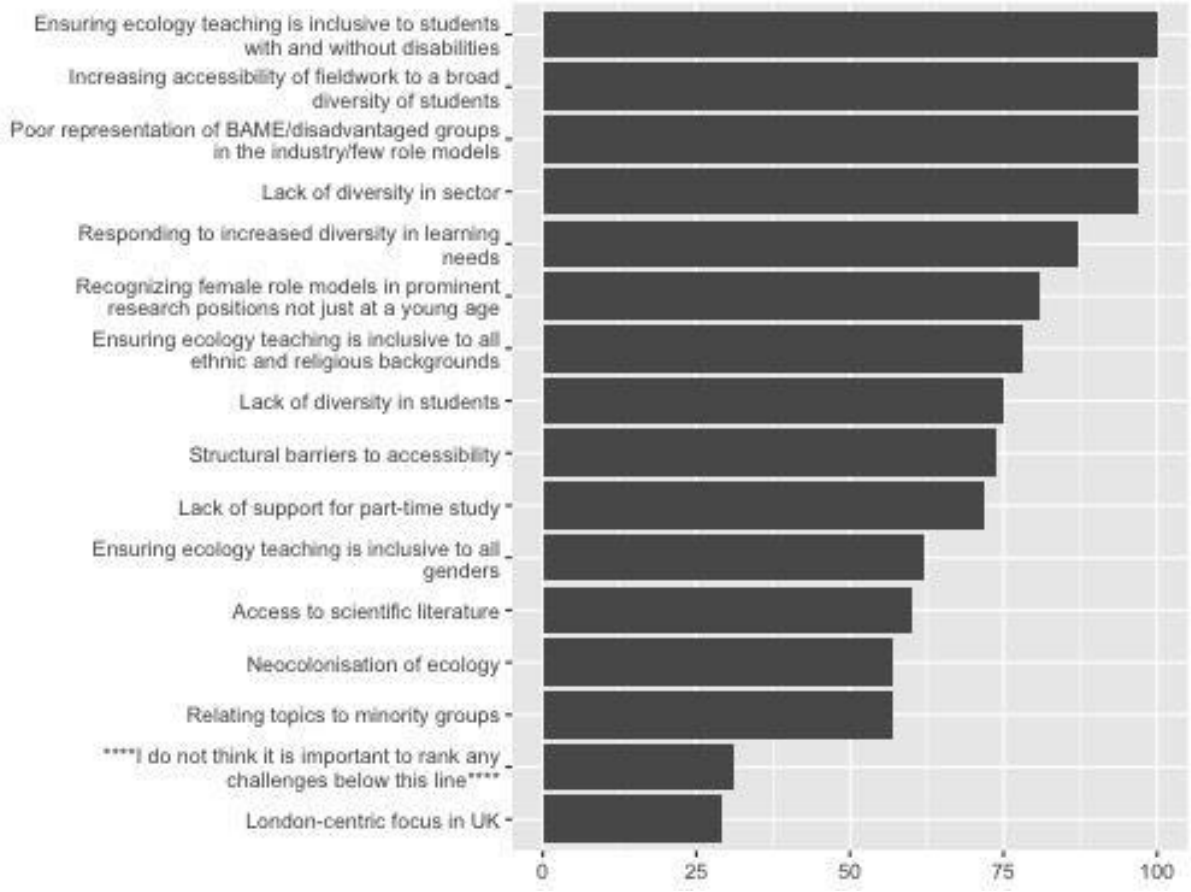

Figure S11. Rankings of issues associated with the provision of graduate capabilities

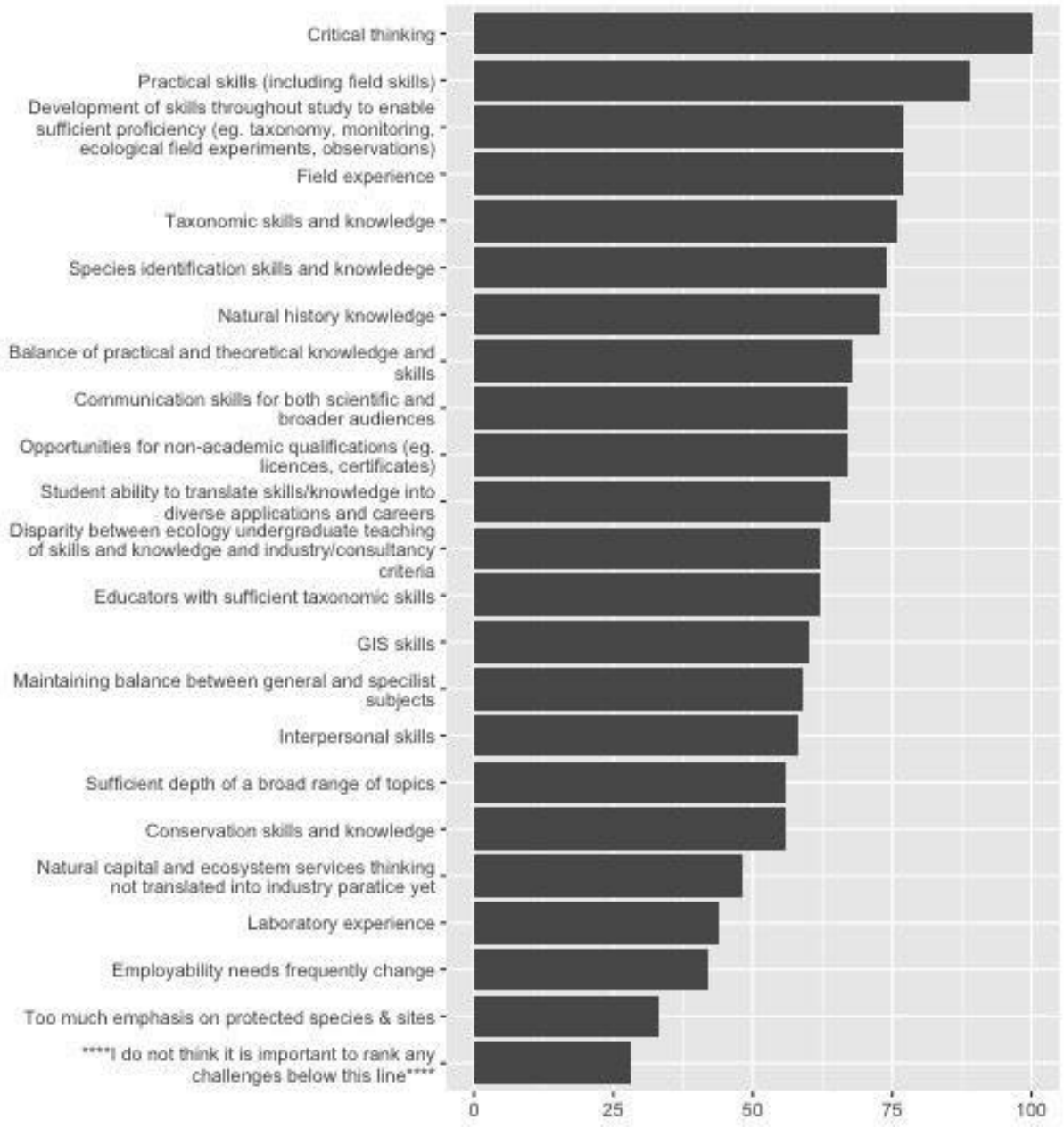

Figure S12. Rankings of issues associated with pedagogy and teaching

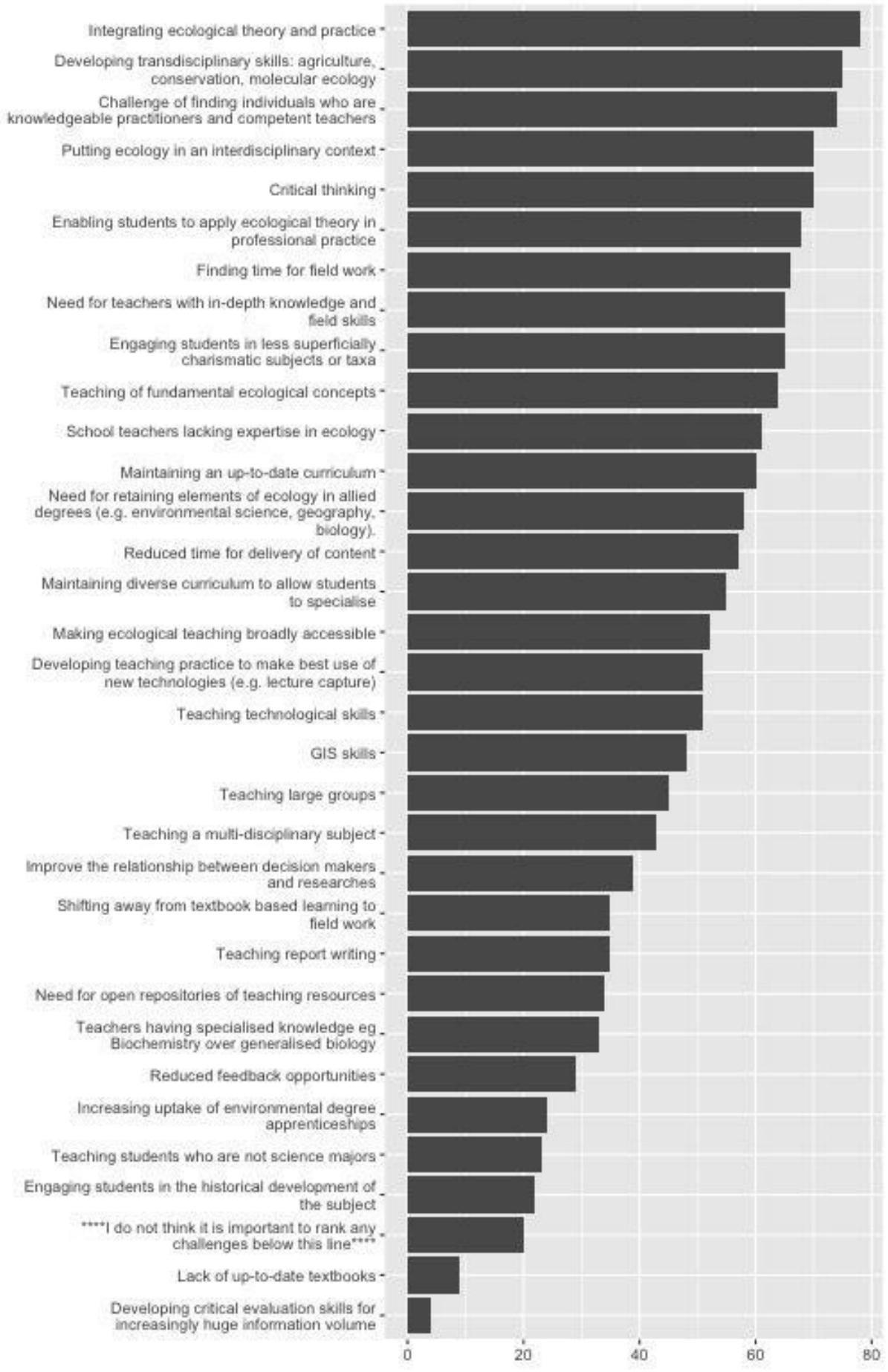
Integrating ecological theory and practice
Developing transdisciplinary skills: agriculture, conservation, molecular ecology
Challenge of finding individuals who are knowledgeable practitioners and competent teachers
Putting ecology in an interdisciplinary context
Critical thinking
Enabling students to apply ecological theory in professional practice
Finding time for field work
Need for teachers with in-depth knowledge and field skills
Engaging students in less superficially charismatic subjects or taxa
Teaching of fundamental ecological concepts
School teachers lacking expertise in ecology
Maintaining an up-to-date curriculum
Need for retaining elements of ecology in allied degrees (e.g. environmental science, geography, biology).
Reduced time for delivery of content
Maintaining diverse curriculum to allow students to specialise
Making ecological teaching broadly accessible
Developing teaching practice to make best use of new technologies (e.g. lecture capture)
Teaching technological skills
GIS skills
Teaching large groups
Teaching a multi-disciplinary subject
Improve the relationship between decision makers and researches
Shifting away from textbook based learning to field work
Teaching report writing
Need for open repositories of teaching resources
Teachers having specialised knowledge eg Biochemistry over generalised biology
Reduced feedback opportunities
Increasing uptake of environmental degree apprenticeships
Teaching students who are not science majors
Engaging students in the historical development of the subject
****I do not think it is important to rank any challenges below this line****
Lack of up-to-date textbooks
Developing critical evaluation skills for increasingly huge information volume
0
20
40
60
80

Figure S13. Rankings of issues associated with the careers of teachers/lecturers

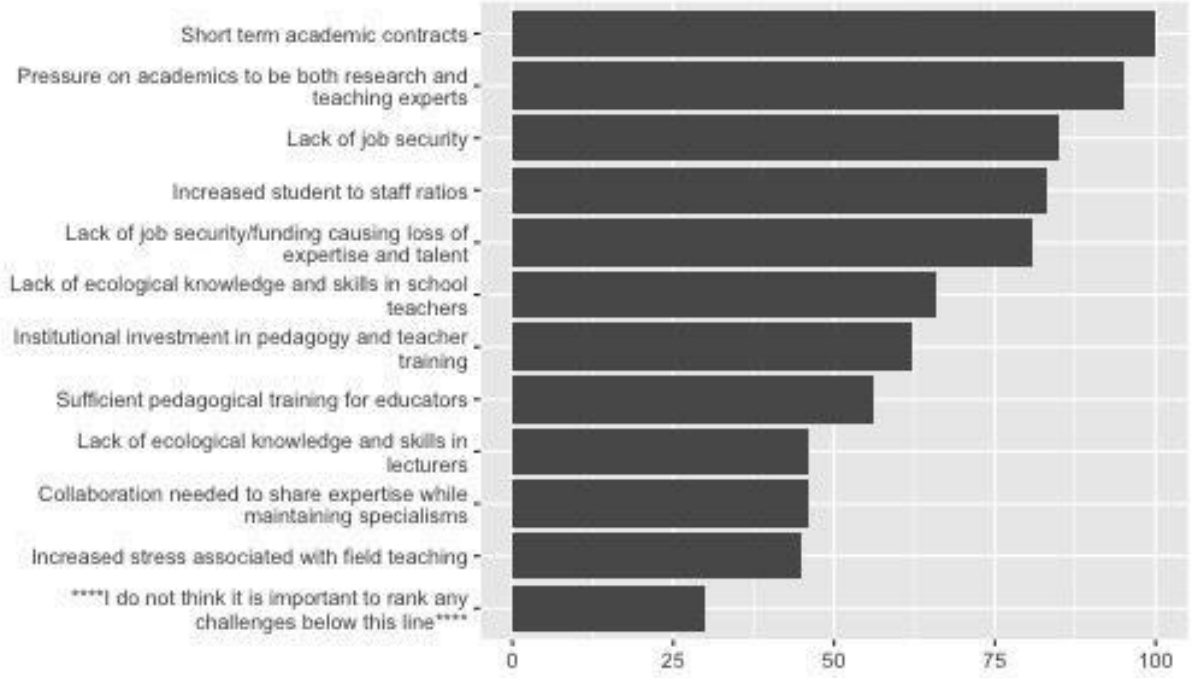

Figure S14. Rankings of issues associated with emerging biological challenges