

The need for upskilling in Forest Science and Conservation Management sectors

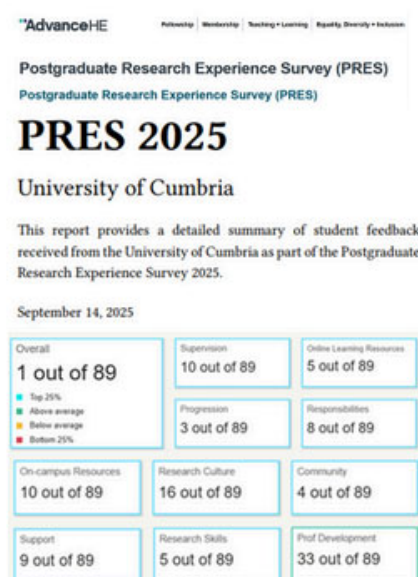


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Climate change, biodiversity loss, and pollution are increasingly acknowledged as a triple crisis threatening lives and livelihoods globally. As we continue to inflict unsustainable demands on our planet, causing extreme pressures on global processes and resources, the need to provide solutions, alternatives and remedial action also increases. Yet who will deliver these, and how will we cultivate the skilled professionals required?

These concerns are especially pressing for the UK, as one of the world's most nature-depleted countries, globally in the bottom 10%, as such, the UK government has implemented strategies to arrest and reverse these trends. Launching the UK's 25 year Environment Plan, resulted in new policies and strategies: Countryside Stewardship, Woodland Creation schemes and Carbon Code, etc.. New policies mean new targets, with continued emphasis on biodiversity recovery, tree-planting and carbon management as we strive to improve and safeguard the environment, to make Britain greener, ecologically richer and cleaner.

As our green ambition grows, so must our workforce. Opportunities arise from policy shifts, as we seek to halt species decline, restore and rejuvenate landscapes, plant climate resilient woodlands and enhance habitats, we need conservationists and forest scientists who can successfully operate within this rapidly changing landscape. Individuals who can conduct high quality research to provide evidence-based decision making, project manage and evaluate the impacts of projects as well as reporting these findings appropriately, etc..



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**UNIVERSITY IN THE
NORTHWEST AND IN THE
TOP 10 IN THE UK FOR
GRADUATES INTO
EMPLOYMENT OR
FURTHER STUDY WITHIN
15 MONTHS (97% OF
GRADUATES - GRADUATE
OUTCOMES SURVEY, HESA
2025).**

Figure 1. University of Cumbria's postgraduate 'PRES' ranking success (from AdvanceHE, 2025) and graduate employment rates (HESA data, 2025).

The knowledge and skills required are greater than can be acquired by experiential learning whilst on the job. Our master programmes seek to provide individuals with the knowledge, skills and competencies to allow them to take up such posts and perform at the highest level.

University of Cumbria

Delivered from our Ambleside campus, within the Lake District National Park and UNESCO World Heritage Site, our students are directly and uniquely immersed within the environmental and cultural contexts and tensions at play, highlighting the current and future challenges to be faced. With direct access to, and opportunities to study, a rich variety of conservation priority habitats, including uplands and temperate rainforest, peatlands, production and ancient semi-natural woodlands, lakes, rivers and coastal environments. Ensuring our MSc students graduate with the appropriate specialist knowledge, understanding and skills needed for professional practice within the sector - locally, nationally, and internationally.

The University has recently enjoyed much success in students' satisfaction of experiences and teaching they receive at post graduate level. Similarly, and importantly, HESA data released in June 2024 reported UoC as attaining the excellent rate of over 97% of graduates employed or studying 15 months after graduating and over 86% in professional employment (Fig.1).

After researching current industry needs, the University of Cumbria developed two MSc level programmes to fulfil gaps within the sector aimed at raising the quality and standards of operations and practice. Brief overviews of the programmes are as follows.

Forest Science (MSc)



Figure 2. Current forestry science research on carbon fluxes being demonstrated during a student fieldtrip at Hyytiälä Forest Station Finland, 2025 (photo © Angus I. Carpenter, 2025).

This new MSc Forest Science equips you with the advanced knowledge and skills needed for modern forestry practice. This programme is designed to address the complexities of globalised forestry and forest science while seeking to meet the demand for timber under competing pressures of biodiversity loss, climate change, and deforestation. It will provide the student with a scientific grounding that integrates the latest research across tree to forest scales with cutting-edge technology for modern forestry (Fig. 2). Preparing graduates with the knowledge and skills to thrive in today's dynamic forestry sector.

Students will study forestry from the local to global scale, to understand how forest ecosystems are responding to environmental and land-use change, with special consideration for deforestation, biodiversity loss, and countermeasures against the impacts of pests and diseases on forest health. Investigating the impacts of global climate change on forest ecosystems and students become confident with the tools and technologies available to improve the forestry sector and bring a modern perspective to forestry practice. The syllabus draws together research and its practical application, by building up knowledge of tree improvement, forest ecosystem management, and forest climate resilience, as well as landscape level processes.

Conservation Management (MSc)

This new programme meets the growing demands for professional conservation scientists to address global environmental challenges such as biodiversity loss, habitat restoration, climate change and the role people play within these contexts (Fig. 3). Graduates will complete the programme with specialist knowledge, understanding and skills needed for professional practice within the sector - locally, nationally, and internationally. The expertise gained in applied conservation, ecological research, and management skills, will make them ideally suited for roles in conservation, academia, government, NGOs, and private sectors.



Figure 3. Widely ranging scenarios that conservation managers may be required to engage and address within their duties (photo © Angus I. Carpenter, 2025).

Effective conservation management needs suitably qualified staff to lead and manage projects, as well as to research and report on the impacts of interventions. Entering the Anthropocene places an even greater demand for conservation managers to possess up-to-date knowledge and understanding on current biological priorities whilst being able to effectively implement and manage conservation actions. This MSc programme provides you with the essential knowledge, skills and competencies that are required for a modern-day conservation leader/manager to perform at the highest level.

Both programmes are supported by specialist research centres within the university; the MSc Forest Science by the '[National School of Forestry](#)' while the MSc Conservation Management has the [Centre for National Parks and Protected Areas](#).

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