

L4: Assistant Ecologist

Version 0.0

Occupation

Assistant Ecologist

UOS reference number

ST1474

Core and options

No

Option titles

Level of occupation

Level 4

Occupational maps data

Route: Agriculture, environmental and animal care

Pathway: Agriculture, Land Management and Production

Cluster: Environment specialist

Typical duration of apprenticeship

24 months

Is this an integrated apprenticeship

No

Target date for approval

Wednesday 14 May 2025

Resubmission

No

Would your proposed apprenticeship standard replace an existing framework?

No

Occupation profile

This occupation is found across a broad spectrum of employers, ranging from small to large organisations, including commercial consultancies, government bodies, environmental charities, local authorities, and academic institutions. The primary purpose of an Assistant Ecologist is to support ecological projects by conducting field surveys, identifying species and habitats, and assessing environmental conditions. They play a key role in monitoring biodiversity and conservation efforts, gathering ecological data that informs decisions on habitat management, environmental protection, and sustainable development. Assistant Ecologists support projects by conducting field and desk-based activities to gather data on species, habitats, and environmental conditions, using a wide range of survey methods in accordance with best practice guidelines. Assistant Ecologists assist in conducting site assessments, evaluating ecological impacts, and contributing to conservation, nature recovery and planning. They support ecologists through work such as research, collecting and managing biodiversity and environmental data, conducting analysis, site management and assisting in preparing reports. Assistant Ecologists may work on projects including infrastructure and construction, and construction sites.

With guidance, they liaise with clients, stakeholders, and contractors, ensuring compliance with ecological regulations and sustainability goals. Their role may include supporting monitoring programmes and research. They work in diverse settings, completing fieldwork in both the countryside and urban environments, and carrying out desk-based tasks. Fieldwork may involve working in remote locations and in adverse weather conditions, and sometimes requiring non-standard hours, such as evening work, to complete survey tasks at optimal times.

Site visits can include protected sites, nature reserves, and construction projects, while desk-based tasks may involve reviewing evidence and using maps to plan surveys, analysing survey findings and assisting in writing ecological reports. Assistant Ecologists manage equipment and survey tools, ensuring their proper use in accordance with best practice guidelines for ecological surveying. They must be aware of and follow environmental laws, wildlife protection legislation, health and safety and biosecurity protocols, including those related to invasive species and habitat disturbance.

Assistant Ecologists engage with colleagues internally and externally, including participating in ecological consultations and project meetings. They report to more senior ecologists and project managers, collaborating with specialists in areas such as botany, entomology, or ornithology. They may liaise with clients, landowners, conservation organisations, and statutory bodies, typically under the guidance of more experienced team members. They may also work alongside contractors and consultants in fields such as engineering and landscape architecture.

Assistant Ecologists are responsible for completing assigned tasks and contributing to larger ecological projects with a degree of autonomy. They typically work under the supervision of more senior ecologists or project managers but are expected to manage day-to-day duties independently, for example during field survey work. The level of supervision varies based on the organisation's size, project complexity, and lone-working arrangements.

Assistant Ecologists manage resources such as specialist ecological survey equipment, GPS devices, and, occasionally, company vehicles for site visits. They do not typically manage staff but are likely to work alongside colleagues, volunteers, and contractors during fieldwork. Assistant Ecologists must adhere to wildlife protection laws, health and safety protocols, and ecological best practices, including undertaking risk assessments prior to site visits. They must maintain professionalism and attention to detail, particularly in recording species observations, habitat assessments, and preparing reports that influence conservation and development decisions.

Green job titles

Assistant ecologist

Ecologist technician

Ecology technician

Occupation duties

Duty

KSB mapping

Duty 1 Conduct desk-based activities using existing sources of information to identify ecological and environmental characteristics and evaluate the implications of findings.

Duty 2 Assist in the planning and preparation of surveys.

Duty 3 Use standard fieldwork techniques to identify and record species, environmental conditions, and habitats, in accordance with industry accepted good practice guidelines.

Duty 4 Maintain and deploy field equipment.

Duty 5 Adhere to organisational policies, including biosecurity, health and safety, and risk management.

Duty 6 Use software packages to record, manage and present data and other information, including specialist software

Duty 7 Assist with the analysis, interpretation, and evaluation, of ecological and environmental data.

Duty 8 Communicate and collaborate with stakeholders and colleagues.

Duty 9 Assist in the preparation of technical ecological reports according to applicable best practice guidance.

Duty 10 Use evidence to inform and justify decisions, and applicable codes of conduct to guide professional and ethical practice.

Qualifications

Does the apprenticeship need to include any mandated qualifications in addition to the above-mentioned English and maths qualifications?

No

Professional recognition

This standard aligns with the following professional recognition:

- Chartered Institute for Ecology and Environmental Management (CIEEM) for Foundation level

Typical entry point to the apprenticeship

Outline the typical entry point for the occupation. This could be in terms of job roles, qualifications, or experience. Or a mix of these.

Employers will set their own entry requirements but these may typically include a relevant L3 qualification (e.g. BTEC National Diploma, Access to Higher Education Diploma, or A-Levels) or suitable experience, together with GCSE Grade 4 or above English and Maths. The employer may require prospective apprentices to have an appreciation for the natural environment and be committed to working in an ethical manner to ensure the right outcomes for the environment.

Transferability

Explain how you will ensure this occupation is relevant to the range of employers who employ people in it.

Technician level ecological skills are in high demand as a result of both continuing skills shortages and a rapid increase in demand for ecological support and expertise to redouble our efforts to avert climate and biodiversity collapse, with government initiatives such as Biodiversity Net Gain becoming a major driver of skills needs. Skills from ecologists are in demand in the farming sector, government agencies, construction and landscaping, teaching and research, habitat creation and restoration, woodland planting and peatland restoration, ecological and environmental consultancies, amongst others. This will increase as new legislation, such as the Environment Act, call for a range of environmental targets to be met across a range of sectors. The apprenticeship will be designed to provide the core knowledge, skills and behaviours required by ecologists in a range of, rather than in a single sector. This will increase the transferability of the apprenticeship and further improve the employability of apprentices completing the qualification. The employer group is wide-ranging and has representation across all potential sectors, with members providing good geographical coverage. The Chartered Institute of Ecology and Environmental Management has >8200 members and has commissioned extensive research into ecology skills needs with partners including Defra and Lantra.

Typical number of annual starts

Enter the expected number of starts per year you expect on the apprenticeship. This should be for employers across England, not just with employers in the trailblazer group.

80

Stand-alone occupation

Level 4 Countryside Ranger: There are significant differences that justify the creation of a dedicated technical level apprenticeship, which is more suitable for the specific needs of the applied ecology sector, including ecological consultancy, local government, government agencies and NGOs. The Countryside Ranger occupation mainly focuses on managing and conserving rural or natural areas. On the other hand, an Assistant Ecologist specialises in conducting scientific field surveys, collecting data, and supporting ecological assessments, for example by generating data for Ecological Impact Assessment and Biodiversity Net Gain plans.

Level 6 Environmental Practitioner: This occupation is designed for individuals seeking an advanced and comprehensive education in environmental science, typically leading to higher-level roles. It provides a broad overview rather than the specific hands-on technical skills required for a Level 4 Apprentice Ecologist. In contrast, the Level 4 pathway is intended as an entry-level programme, providing foundational skills and knowledge suitable for those starting their careers in ecology and offering a shorter and more focused route for those looking to enter the workforce sooner. This shorter route not only benefits the candidate but also addresses more immediate workforce needs.

Level 7 Consultant Ecologist: This pathway is intended for individuals with significant experience and prior education, with entry requirements including an upper 2nd class degree. The training for this pathway is theory-driven, unlike the practical hands-on experience of a Level 4 pathway, which would offer a more immediate solution to skills gaps and capacity crises within the sector. Both the Level 6 and 7 standards provide opportunities for progression from Level 4. With careful design of the KSBs, the lower rung on the progression ladder provides the opportunity for apprentices to complete an accelerated Level 6 apprenticeship. For example, through completion of a four-year Level 6 after two-year L4. For training providers already offering the L6 standard this provides an opportunity to map 1st and 2nd year course content to the L4 standard. This in turn reduces the risk perceived by employers, apprentices, and training providers of retaining apprentices for the duration of a six-year programme.

Name of EQA provider

Where Ofqual or the Office for Students (OfS) is the external quality assurance (EQA) provider, use this form to nominate a sector representative organisation to apply to the directory of professional and employer-led bodies. The directory of professional and employer-led bodies consists of organisations that can further strengthen Ofqual or the OfS's EQA activity with genuine occupational expertise.

Ofqual

Progression Routes

ST0577 Ecologist (degree) L7

Supporting uploads

Transferability uploads

ST1474_proposal_transferability_Assistant Ecologist - Lakeway Ecological.pdf

[ST1474_proposal_transferability_Ecologist - HEAecology.pdf](#)

[ST1474_proposal_transferability_Ecology by Design - Graduate Ecologist Job Description.pdf](#)

Involved employers

WSP, Severn Trent Water, Network Rail, Environment Agency, Natural England, Forestry Commission, London Borough of Lambeth Highways, Environment and Facilities Management, Integrated Ecological Solutions Ltd, CSA Environmental, Ecology By Design, Enims, RSK Biocensus, JP Environmental Solutions, Ecology Co-op, Native Ecology, SWT Ecology Services, London Wildlife Trust, Atkins Realis. Other stakeholders: Chartered Institute of Ecology and Environmental Management (CIEEM)

Subject sector area

3.4 Environmental conservation

Knowledge Skills and Behaviours

Knowledge

NB: It is assumed that all of the knowledge statements start with “knowledge and understanding of...”
There is no need to include that pretext in the statement.

- Ecosystems, species interactions, and biodiversity.
- Laws, policies and consenting affecting ecological work applicable to the organisation
- Good practice guidelines and how they inform the design and planning of ecological surveys
- Methods used to identify flora and fauna.
- Different habitat types and their characteristics.
- Different species, typical habitats and basic ecology.
- Methods and techniques used for ecological fieldwork.
- Methods used to record environmental data accurately and systematically.
- Geographic Information Systems (GIS) and mapping.
- How to select, deploy and maintain field equipment.
- Risk assessment and safety protocols in field and office settings.
- The use of software for managing and organising and analysing ecological data.
- Technical written report requirements.
- Techniques for interpreting ecological and environmental data.
- Methods for engaging, communicating and collaborating with stakeholders.
- Professional and ethical standards, and codes of conduct in ecological work.
- How best practice is applied using data and evidence and how it's identified.
- The effects of climate change on ecosystems and species.
- The impact of actions and behaviours on greenhouse gas emissions and biodiversity.
- Methods used to keep updated with the latest research and developments in ecology and environmental science.
- Biosecurity issues and standard biosecurity protocols.

- The roles of other professionals and stakeholders in projects.
- Project management processes and systems.
- Principles and standard methods of data management.
- General Data Protection Regulations and confidentiality.

Skills

- Collect, analyse, and interpret data to inform decisions
- Assist in the planning and preparation of surveys.
- Select and use of appropriate ecological sampling and survey methods, for example transects, quadrats, and point counts.
- Identify species and habitats.
- Assess environmental conditions
- Plan and implement biosecurity measures.
- Conduct and comply with health and safety risk assessments.
- Use software for recording and managing data.
- Prepare technical ecological reports.
- Collaborate and communicate with colleagues and stakeholders.
- Identify and report issues during fieldwork and desk-based activities.
- Use GIS or similar data collection tools for mapping and data gathering/analysis.
- Make evidence-based decisions.
- Plan and manage fieldwork logistics and resources.
- Adapt to different fieldwork conditions and project requirements.
- Select, maintain and deploy field equipment

Behaviours

- Has a flexible, positive attitude to work and sets a good example to others.
- Self-motivated, able to manage own time and report issues affecting performance
- Acts collaboratively to develop and maintain good working relationships, taking accountability for actions and commitments

- Committed to keeping up with industry developments and good practice.
- Demonstrates a commitment to Equality, Diversity and Inclusion.
- Adheres to professional standards, demonstrating integrity and ethical conduct
- Takes responsibility for own H&S and wellbeing and reports issues
- Respects confidentiality