



National Unit specification: general information

Unit title: Habitat Assessment (SCQF level 6)

Unit code: FV42 12

Superclass: QA

Publication date: September 2011

Source: Scottish Qualifications Authority

Version: 02

Summary

This Unit is designed to help candidates improve their knowledge, understanding and skills in relation to habitat assessment and management. Candidates will be better able to survey and evaluate habitats and species present and produce management plans aimed at enhancing the conservational value of a site.

This Unit is suitable for those seeking to establish a career in the management of the natural heritage.

This Unit is a mandatory Unit in the National Certificate in *Countryside Management* (SCQF Level 5) but is also available for candidates wishing to study the Unit on its own.

Outcomes

- 1 Survey the habitats and species of a given site.
- 2 Analyse the nature conservation value of a given site.
- 3 Produce a conservation plan to enhance the habitat value of a given site.

Recommended entry

While entry is at the discretion of the centre, it would be beneficial if candidates have attained one of the following, or equivalent:

- ◆ Principles of Biodiversity Conservation [new Unit]
- ◆ Ecology and Wildlife Identification [new Unit]
- ◆ Standard Grade Biology or Geography at grade 1 or 2
- ◆ Managing Environmental Resources at Intermediate 2
- ◆ Experience of working as a volunteer in the natural heritage

General information (cont)

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Credit points and level

1 National Unit credit at SCQF level 6: (6 SCQF credit points at SCQF level 6*)

**SCQF credit points are used to allocate credit to qualifications in the Scottish Credit and Qualifications Framework (SCQF). Each qualification in the Framework is allocated a number of SCQF credit points at an SCQF level. There are 12 SCQF levels, ranging from Access 1 to Doctorates.*

Core Skills

Achievement of this Unit gives automatic certification of the following Core Skills component:

- ◆ Critical Thinking at SCQF level 5

There are also opportunities to develop aspects of Core Skills which are highlighted in the Support Notes of this Unit specification.

National Unit specification: statement of standards

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Acceptable performance in this Unit will be the satisfactory achievement of the standards set out in this part of the Unit specification. All sections of the statement of standards are mandatory and cannot be altered without reference to SQA.

Outcome 1

Survey the habitats and species of a given site.

Performance Criteria

- (a) Survey existing habitats.
- (b) Survey existing species.
- (c) Present survey data.

Outcome 2

Analyse the nature conservation value of a given site.

Performance Criteria

- (a) Describe the importance of the site's habitat.
- (b) Analyse the conservation value of the site using national and local criteria.

Outcome 3

Produce a conservation plan to enhance the habitat value of a given site.

Performance Criteria

- (a) Describe actions which will enhance the habitats and species of a given site.
- (b) Produce a conservation plan for a given site.

National Unit specification: statement of standards (cont)

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Evidence Requirements for this Unit

Candidates must provide performance, written and/or recorded oral evidence to demonstrate their Knowledge and Skills by showing they can meet the following Evidence Requirements.

Evidence is required to demonstrate that candidates have achieved all Outcomes and Performance Criteria.

The evidence for all Outcomes must be generated under open-book conditions. The assessor must be satisfied that the evidence submitted is the individual candidate's own work.

Outcome 1

Performance and product evidence must include:

- ◆ a survey of habitats present on the site
- ◆ a survey of species present on the site:
 - birds
 - animals
 - plants
- ◆ the data on habitats and species must be presented accurately in a minimum of two formats which must include:
 - habitat map
 - species list

Outcome 2

Written/oral or recorded evidence must include:

- ◆ a description of the importance of the site's habitat:
 - international
 - national
 - local
- ◆ an analysis of the site's conservation value using the following criteria:
 - national
 - rarity
 - naturalness
 - fragility
 - diversity
 - typicalness
 - appeal
 - potential
 - local
 - local Biodiversity Action Plan priority species
 - local biodiversity Action Plan priority habitats

National Unit specification: statement of standards (cont)

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Outcome 3

Written/oral or recorded evidence which includes a conservation plan containing:

- ◆ site description
- ◆ aim
- ◆ evaluation
- ◆ objectives
- ◆ description of actions to enhance habitats and species must include:
 - a minimum of three habitats
 - a minimum of two actions which will improve each habitat
- ◆ conclusion
- ◆ a minimum of two appendices which must include:
 - a habitat map
 - a species list

National Unit specification: support notes

Unit title: Habitat Assessment (SCQF level 6)

This part of the Unit specification is offered as guidance. The support notes are not mandatory.

While the exact time allocated to this Unit is at the discretion of the centre, the notional design length is 40 hours.

Guidance on the content and context for this Unit

This Unit aligns with the following LANTRA National Occupational Standards (NOS):

- ◆ EC2 Survey and report on the condition of the environment
- ◆ EC23 Prepare, conduct and report on field surveys
- ◆ EC24 Produce site management plans

Habitat assessment is vital to the enhancement of any site's biodiversity. The habitat management process involves the gathering and analysis of data on species and habitats. This information is then used to make recommendations on how to improve the site's biodiversity value through practical habitat management actions. These recommendations and actions are contained in a conservation plan which sets out to improve the habitat. An understanding of the habitat management process is very important to those seeking a career in the management of the natural heritage.

Outcome 1

Habitat assessment is based on data relating to the biodiversity value of a site. Good data is the basis of good decisions on how to enhance the habitat. This data needs to relate to both habitats and species. Presentation of this data is usually done in the form of habitat maps and species lists.

First hand evidence collected in the field can be supplemented by existing habitat and species data, but not replaced by it. The candidates need to collect their own field data.

The suitable range of survey techniques is varied. The following are all appropriate:

- ◆ Phase 1 Habitat Survey for vegetation
- ◆ BTO survey methodology, for example Breeding Bird Survey
- ◆ simple bat detection re species
- ◆ basic invertebrate recording, for example pond dipping, kick sampling and pitfall traps
- ◆ walking the site recording habitat distribution and condition on a map
- ◆ walking the site recording species occurrence on a list and distribution on a map
- ◆ mapping skills
- ◆ any locally devised methodology

Some time should be spent in class looking at habitat assessment and survey techniques. However the majority of time should be spent in the field gathering data on habitats and species to contextualise the knowledge gained in class. Nature reserves, designated sites, community landholdings, local forestry plantings, old industrial sites and the wider countryside are all suitable. The site which is to be used for assessment should be identified early on, although it isn't necessary to restrict field visits to this site alone.

National Unit specification: support notes (cont)

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Outcome 2

Having collected the data it must then be analysed in order to ascertain the value of the habitat. The fact that habitat value will vary in a national and local context needs to be explained. Not all nationally important habitats will be found locally. Not all locally important habitats will be significant at national level.

The need to be as objective as possible in assessing habitat value should be emphasised and the criteria which are applied nationally should be highlighted. The use of these criteria minimises personal bias and allows habitats to be compared and prioritised for habitat improvement action. Criteria applied at the national level include:

- ◆ rarity
- ◆ naturalness
- ◆ fragility
- ◆ typicalness
- ◆ appeal
- ◆ potential

In terms of assessing local importance, the presence of any priority species or habitats identified in the Local Biodiversity Action Plan would make them important.

The purpose of data analysis — to inform decision making — needs to be made clear.

Outcome 3

Once data has been gathered and analysed it is presented in the form of a conservation plan. An important function of this plan will be to suggest actions which can be taken to improve the habitat value of the site.

Students should be introduced in class to the process and content of a basic conservation plan aimed at improving habitat value. Looking at existing habitat management plans would be a good way of doing this. The basic format is as follows:

- ◆ site description: summary of key points relating to location, tenure, designation, habitat value
- ◆ aim: the overall vision for the site
- ◆ evaluation: how valuable is the habitat and species against local and national criteria
- ◆ objectives: what needs to be done to improve the habitat and achieve the overall aim? Think to maintain..., to improve..., to create...
- ◆ actions: what needs to be done to achieve an objective. This is the detail relating to what will happen on the ground — exactly what will be done, how, where and when. This should relate to three habitats at least. Examples of habitats are hedges, arable fields, ponds, marshes, rivers, woodland, scrub and grassland.
- ◆ conclusion
- ◆ appendices:
 - habitat map
 - species list

Emphasis should be placed on relating the actions to the objectives and aim for the site.

National Unit specification: support notes (cont)

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Guidance on learning and teaching approaches for this Unit

It is important to strike the right balance between delivery in class and time spent in the field. After some introductory work in the class a significant proportion of time should be spent in the field. However there must also be enough class time at the end for the candidate to work up their habitat plan.

Class sessions could include the following:

- ◆ an introduction to habitat assessment
- ◆ looking at habitat and species survey techniques
- ◆ case studies looking at habitat management plans for nature reserves and other sites
- ◆ group work to plan the habitat of a small local site

Field sessions could include:

- ◆ visits to a variety of different habitats to practice surveying and recording habitats and species
- ◆ practice at mapping habitat data
- ◆ collection of habitat and species data for the assessment site using a variety of methods covering:
 - flora
 - fauna
- ◆ visits to nature reserves and other areas of high biodiversity to discuss habitat enhancement actions with the site manager

Opportunities for developing Core Skills

Oral Communication can be enhanced through classroom discussion and interactions on field trips. Written Communication could be enhanced through the production of assessment evidence.

If assessment work is word processed then there are opportunities for the enhancement of *Information and Communication Technology* skills especially if images, diagrams and such are included. Research on the internet into habitat enhancement measures will also help.

Problem Solving can be developed through making recommendations to enhance the habitat value based on the analysis of data gathered.

National Unit specification: support notes (cont)

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Guidance on approaches to assessment for this Unit

The nature of the Outcomes lends them to integrated assessment. The Unit could be assessed by a holistic assessment covering Outcomes 1, 2 and 3 in the form of producing a conservation plan for a given site.

The following structure could satisfy the Evidence Requirements of all three Outcomes:

- 1 Site description (Outcome 3)
- 2 Aim (Outcome 3)
- 3 Evaluation (Outcome 2)
- 4 Objectives (Outcome 3)
- 5 Actions (Outcome 2)
- 6 Conclusion (Outcome 3)
- ◆ Appendices
 - Appendix 1: Habitat map - showing habitat type, distribution and any annotations indicating quality (Outcome 1)
 - Appendix 2: Species list - observed animals and plants (Outcome 1)

Opportunities for the use of e-assessment

E-assessment may be appropriate for some assessments in this Unit. By e-assessment we mean assessment which is supported by Information and Communication Technology (ICT), such as e-testing or the use of e-portfolios or e-checklists. Centres which wish to use e-assessment must ensure that the national standard is applied to all candidate evidence and that conditions of assessment as specified in the Evidence Requirements are met, regardless of the mode of gathering evidence. Further advice is available in *SQA Guidelines on Online Assessment for Further Education (AA1641, March 2003)*, *SQA Guidelines on e-assessment for Schools (BD2625, June 2005)*.

Disabled candidates and/or those with additional support needs

The additional support needs of individual candidates should be taken into account when planning learning experiences, selecting assessment instruments, or considering whether any reasonable adjustments may be required. Further advice can be found on our website www.sqa.org.uk/assessmentarrangements

History of changes to Unit

Version	Description of change	Date
02	Core Skills Component Critical Thinking at SCQF level 5 embedded.	29/09/2011

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