



National Unit specification: general information

Unit title: Quarry Species (SCQF level 5)

Unit code: FN57 11

Superclass: SH

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Version: 01

Summary

This Unit is intended for candidates who wish to develop their knowledge and understanding of the UK quarry species, their ecology and habitat requirements. This Unit is suitable for candidates wishing to develop their identification skills, and their understanding of the ecology and relevant legislation related to the taking of all UK quarry species.

This Unit is a mandatory Unit in the National Certificate in Gamekeeping but is also available for candidates wishing to study the Unit on its own.

Outcomes

- 1 Identify UK quarry species.
- 2 Investigate the ecology and life cycles of UK quarry species.
- 3 Identify habitats associated with UK quarry species.
- 4 Demonstrate an understanding of the legislation associated with UK quarry species.

Recommended entry

While entry is at the discretion of the centre, it is recommended that candidates have attained some relevant experience of gamekeeping activities or game sporting activities prior to undertaking this Unit.

Credit points and level

2 National Unit credits at SCQF level 5: (12 SCQF credit points at SCQF level 5*)

**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.*

National Unit specification: general information (cont)

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Core Skills

Opportunities to develop aspects of Core Skills are highlighted in the Support Notes of this Unit Specification.

There is no automatic certification of Core Skills or Core Skill components in this Unit.

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

Identify UK quarry species.

Performance Criteria

- (a) Identify the UK mammalian quarry species.
- (b) Identify the UK avian quarry species.

Outcome 2

Investigate the ecology and life cycles of UK quarry species.

Performance Criteria

- (a) Outline the seasonal movements associated with UK quarry species.
- (b) Identify behavioural patterns of UK quarry species.
- (c) Describe the breeding cycles associated with UK quarry species.
- (d) State the incubation and gestation periods of UK quarry species.

Outcome 3

Identify habitats associated with UK quarry species.

Performance Criteria

- (a) Identify flora found in the habitats of UK quarry species.
- (b) Identify habitats associated with mammalian UK quarry species.
- (c) Identify habitats associated with avian quarry UK species.

Outcome 4

Demonstrate an understanding of the legislation associated with UK quarry species.

Performance Criteria

- (a) State the open seasons for UK quarry species.
- (b) Describe the factors leading to the restriction of shooting of UK quarry species.
- (c) Identify legislation associated with UK quarry species.

National Unit specification: statement of standards (cont)

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Evidence Requirements for this Unit

All activities undertaken in this Unit must adhere to current legislation, regulations and codes of practice.

Written and/or oral and performance evidence is required to demonstrate that the candidate has achieved all of the Outcomes and Performance Criteria.

Outcome 1

Candidates should provide written and/or oral evidence to demonstrate their knowledge, understanding and/or skills in relation to the Outcome and Performance Criteria.

Candidates will be assessed on their knowledge of ten randomly selected species, and to include five mammalian and five avian quarry species from those given below. The assessment must cover species from both lowland and upland habitats.

Identification of five mammalian quarry species from:

- ◆ red, sika, fallow, roe, muntjac and chinese water deer
- ◆ brown and blue hare
- ◆ rabbit

Identification of features associated with mammalian quarry species to include:

- ◆ body size, shape and appearance
- ◆ seasonal changes

Identification of five avian quarry species:

- ◆ pheasant, grey and red leg partridge
- ◆ red grouse, black grouse, and ptarmigan
- ◆ greylag, pinkfoot, and canada geese
- ◆ mallard, widgeon, teal, pochard, pintail, tufted, golden eye, gadwall and shoveler
- ◆ woodcock and common snipe
- ◆ wood pigeon

Identification of features associated with avian quarry species to include:

- ◆ plumage
- ◆ size and shape
- ◆ colouration – body, beak, wings and head
- ◆ silhouette of avian quarry species in flight

National Unit specification: statement of standards (cont)

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Outcome 2

Candidates should provide written and/or oral evidence to demonstrate their knowledge, understanding and/or skills in relation to the Outcome and Performance Criteria. The candidates should portfolio build for each of the UK quarry species to enable knowledge and understanding of their ecology. Assessment will be based on two mammalian and two avian species, selected from the list given in the Evidence Requirements for Outcome 1.

For mammalian quarry species the evidence must include:

- ◆ seasonal movements — woodland, arable, moorland, wetland, and mountain
- ◆ breeding cycles — oestrus, rutting, monogamous, polygamous, seasonal, and timing
- ◆ gestation periods — number of days, and numbers of offspring
- ◆ preferred locations — form, burrows, woodland, arable, and hill

For avian quarry species the evidence must include:

- ◆ seasonal movements — woodland, arable, moorland, coastal, wetland, and mountain
- ◆ migrants, residents, solitary, sedentary, arboreal, and diurnal
- ◆ breeding cycles — leking, monogamous, polygamous, courtship, seasonal, and timing
- ◆ incubation times — number of days
- ◆ brood patches
- ◆ preferred nest sites
- ◆ egg clutch size, and number of clutches
- ◆ peak hatching times — Feb, March–June and July
- ◆ peak periods — March, April and June
- ◆ preferred sites and locations — wetlands, marshland, scrubland, woodland, and moorland

Outcome 3

Candidates should provide written and/or oral evidence to demonstrate their knowledge, understanding and/or skills in relation to the Outcome and Performance Criteria

The evidence must include:

- ◆ identification of 5 common lowland flora types
- ◆ identification of 5 common upland flora types
- ◆ identification of 3 related habitats associated with quarry species to cover both mammalian and avian (a minimum of one each)

National Unit specification: statement of standards (cont)

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Outcome 4

Candidates should provide written and/or oral evidence to demonstrate their knowledge, understanding and/or skills in relation to the Outcome and Performance Criteria.

The candidate should develop knowledge and understanding of the associated legislation, open seasons, factors that may restrict taking of quarry species and factors that may impact on their life cycle. Assessment should be based on the open seasons of five selected quarry species from Outcome 1, and two factors restricting the taking of quarry species.

The evidence must include:

- ◆ open seasons for five UK quarry species from those given in the Evidence Requirements in Outcome 1
- ◆ two factors restricting the taking of UK quarry species
- ◆ two welfare issues that impact on the life cycle of UK quarry species
- ◆ identification of two pieces of current legislation associated with UK quarry species

National Unit specification: support notes

Unit title: Quarry Species (SCQF level 5)

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 80 hours.

Guidance on the content and context for this Unit

This Unit is a mandatory Unit within the National Certificate in Gamekeeping (SCQF level 5), but can also be taken as a free-standing Unit.

This Unit is aligned to the following LANTRA National Occupational Standards (NOS):

- ◆ Ga2 Monitor Game Populations and Habitats

This Unit is intended for candidates who wish to develop knowledge and understanding of quarry species which is recognised as an important area within the gamekeeping sector.

Outcome 1

This covers the identification of avian and mammalian quarry species in the UK. This will enable the candidate to develop their field craft skills, which is essential for the pursuit and taking of all quarry species in the UK. Dominant identification features should relate to birds and mammals and be relevant to quarry species only. This should include size, shape, colouration, pelage, plumage and general appearance associated with male and female. Emphasis should be given to seasonal changes in appearance due to breeding, winter, summer pelage and plumage. Flight patterns, calls and silhouettes should also be included to enable the candidate to identify quarry species at a further distance.

Outcome 2

This is intended to give the candidate knowledge and understanding of the ecology and life cycle of UK quarry species. This will include the seasonal movements due to shelter, food availability, breeding, rearing of offspring, broods, and freedom from parasites. An understanding should also be developed in relation to the general behavioural pattern of each quarry species. This will enable the candidate to pursue their intended species in relation to their daily or seasonal habits. This should relate to their habitat type, feeding habits, movement, and breeding cycles. An understanding of terms within their life cycles should be developed and relate to breeding cycles, peak gestation, incubation periods, clutch and brood sizes, number of off spring, and preferred sites and location.

National Unit specification: support notes (cont)

Unit title: Quarry Species (SCQF level 5)

Outcome 3

This will enable the candidate to develop their identification skills in relation to habitat types and common flora types associated with quarry species at seasonal times of the year. Particular emphasis should be given to the requirement for differing flora types during breeding, brood rearing and winter holding. This should only encompass the common habitat types and common flora within them. Habitat and flora types should be directly linked to vulnerability of adults during the incubation / gestation periods, the protection of offspring and broods, food source, insect productivity, security from predators and shelter during the winter months. This should include cover crops and their ability to support passerines and benefits of other fauna outwith quarry species. Common flora types should include:

- conifer tree types — larch, Scots Pine, Sitka Spruce, and Norway Spruce
- deciduous tree types — Ash, Rowan, Hazel, Beech, Oak, Birch, Alder, and Chestnut
- common shrub types
- broom, gorse, and whin
- nettle and willow herb
- heather types
- bracken
- common rush
- phragmites
- arable crops
- root crops

Habitat types should include grassland, arable, hedgerow, wetland, woodland, moorland, scrubland, and estuary, cereal crops, beechnut, bilberry, cowberry, crowberry, cotton grass, aquatic vegetation, pondweed, and catkins.

Outcome 4

This Outcome allows the candidate to recognise the seasonal and unseasonal times of year to take quarry species in the UK. This should apply to the open and closed seasons within Scotland only and apply to deer, ground game, heath game and wildfowl. The factors leading to the cessation of shooting of wildfowl should include severe cold weather bans, decline in species, notifiable diseases and welfare issues. The candidate should also develop their knowledge on etiquette and field craft associated with quarry species. This should include respect for quarry, relevant bag numbers, humane despatch, and impact of introduced species on wild populations and habitats. Reference should be given to current UK legislation, the W.C. Act 1981, W&NE bill and offences relating to taking of quarry species outwith the common open seasons. A knowledge of notifiable diseases relating to avian and mammalian quarry species should also be developed and include appropriate action for prevention of outbreaks.

Further information can be gained on identification features, life cycles, and relevant current legislation associated with quarry species from BASC, SNH and Defra web sites.

National Unit specification: support notes (cont)

Unit title: Quarry Species (SCQF level 5)

Guidance on learning and teaching approaches for this Unit

This Unit maybe integrated with the NQ Units Deer Biology and Wildfowl: Shooting and Habitat. In this Unit candidates will gain knowledge and understanding relating to quarry species. It is essential that candidates are aware of the legislation and the current relevant key aspects that relate to quarry species. However it is not expected that there would be any detailed teaching or investigation of legislation.

Essential knowledge and understanding could be developed by a variety of teaching and learning approaches including:

- ◆ tutorials
- ◆ DVD/video
- ◆ demonstrations
- ◆ internet/website
- ◆ internal visitation
- ◆ field trips/investigation
- ◆ group work
- ◆ working individually

It is expected that candidates will be given support and guidance from the instructor/lecturer in all Outcomes before progressing to an assessment.

National Unit specification: support notes (cont)

Unit title: Quarry Species (SCQF level 5)

Guidance on approaches to assessment for this Unit

The following approaches to assessments are suggested:

- Outcome 1 Digital images with restricted response answer under closed-book conditions
- Outcome 2 Restricted response question and answer under closed-book conditions
- Outcome 3 Open-book assessment relating to flora and habitat types
- Outcome 4 Restricted response question and answer under closed-book conditions

Centres may use the instruments of assessment which are considered by tutors and lecturers to be the most appropriate for the available resources.

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)*.

Opportunities for developing Core Skills

In this Unit candidate will investigate and recognise key areas of relevant current legislation, identify and research UK quarry species, habitat types, and current codes of practice relating to the taking of UK quarry species. This provides ideal opportunities for candidates to develop aspects of Communication, IT skills, Numeracy and Problem Solving at SCQF level 5. This may relate to counting of deer and wildfowl, working with others, recording of data related to counts and problem solving relating to reduction or decline in species.

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

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