

Wildlife Population Survey

Lundie Muir Plantation

August 2019



Introduction

This wildlife population survey was commissioned by [redacted] and carried out in its entirety by [redacted]. The purpose of the survey was to assess the conservation value of the survey area, the likely presence of rare or protected bird and mammal species, to identify any features, habitats or species which would constitute potential constraints to any development which might take place, and to make recommendations for mitigation and/or further survey work, as appropriate.

Following the initial site assessment on 29th July 2019, a perimeter survey was carried out on 30 July 2019. Further surveys were conducted on 6 August 2019 and 13 August 2019 in order to gain a more complete dataset of the populations of wildlife using this woodland site.

Location

The site surveyed is titled the Lundie Muir Plantation, Ordnance Survey grid reference NO307 352 (woodland mid point). This east to west woodland 'strip' is bordered to the north by the A923 and to the south by adjacent woodland as part of the Piper Dam holiday resort. The woodland survey area is approximately 5.5 hectares (13.5 acres).

Site content description

The site is a solely wooded area with no buildings, internal path or road structures. The tree content consists of European larch and spruce sp. with sycamore, oak, beech, rowan and alder trees bordering its edges to the north, east and west boundaries. There are several windblown trees in the centre of the site, which has allowed for sporadic common nettle, and elder growth. The adjacent southern border is a predominantly spruce planted woodland with mixed deciduous edges.

Methodology: Point counts and line transects

Two different methods of monitoring were used – point counts and line transects. The former involved walking into particular spots along the east west centre line of the woodland site, and then recording all wildlife observations, visually and audibly for a pre-determined period (for this survey 5 to 10 minutes) before moving on to the next point (approximately every 20 metres). Line transect involved continually walking and recording all wildlife observations either side of the perimeter of the survey site. Mammal observations; feeding remains, food drops, tracks, burrows, dens, holts, dreys etc were sought and located within the site. Bird samples and signs were recorded as individual species present with breeding, passage or flight being noted although the population densities were not calculated for the survey of this relatively small survey site. Surveys were undertaken during daylight hours that mostly eliminated the possibility of recording crepuscular and nocturnal birds.

Observation sampling

Observations were recorded for the purpose of this report of bird and selected mammal species only. Invertebrates, reptiles, amphibians and non-protected terrestrial mammal species data were omitted from the findings. The following data summary tables were collated and used to conclude the report for the Lundie Muir Plantation.

Monday 29th July 2019 from 2.30pm			
Initial site assessment; recording the survey area, trees and casual wildlife observations.			
Group	Species	Abundance	Observation
Bird	Chaffinch <i>Fringilla coelebs</i>	Common	Audible
Bird	Blue tit <i>Cyanistes caeruleus</i>	Common	Sight and audible
Bird	Great tit <i>Parus major</i>	Common	Sight and audible
Bird	Coal tit <i>Periparus ater</i>	Common	Audible
Bird	Blackbird <i>Turdus merula</i>	Frequent	Sight and audible
Bird	Wood pigeon <i>Columba palumbus</i>	Common	Sight and audible
Bird	Wren <i>Troglodytes troglodytes</i>	Common	Audible
Bird	Robin <i>Erithacus rubecula</i>	Common	Sight and audible
Bird	Chiffchaff <i>Phylloscopus collybita</i>	Single	Audible
Bird	Carrion crow <i>Corvus corone</i>	Single	Audible
Mammal	Red squirrel <i>Sciurus vulgaris</i>	No sightings	No observations
Mammal	Pine marten <i>Martes martes</i>	No sightings	No observations
Mammal	Badger <i>Meles meles</i>	No sightings	No observations

Tuesday 30th July 2019 from 8.10am			
Perimeter line transect method			
Group	Species	Abundance	Observation
Bird	Chaffinch <i>Fringilla coelebs</i>	Common	Sight and audible
Bird	Blue tit <i>Cyanistes caeruleus</i>	Common	Sight and audible
Bird	Great tit <i>Parus major</i>	Common	Sight and audible
Bird	Coal tit <i>Periparus ater</i>	Common	Sight and audible
Bird	Blackbird <i>Turdus merula</i>	Frequent	Sight and audible
Bird	Wood pigeon <i>Columba palumbus</i>	Frequent	Sight and audible
Bird	Wren <i>Troglodytes troglodytes</i>	Common	Sight and audible
Bird	Willow warbler <i>Phylloscopus trochilus</i>	Frequent	Sight and audible
Bird	Chiffchaff <i>Phylloscopus collybita</i>	Single	Audible
Bird	Carrion crow <i>Corvus corone</i>	Frequent	Sight and audible
Bird	Yellowhammer <i>Emberiza citrinella</i>	Single	Sight and audible
Bird	Tree sparrow <i>Passer montanus</i>	Frequent	Sight
Bird	Dunnock <i>Prunella modularis</i>	Frequent	Sight
Bird	Robin <i>Erithacus rubecula</i>	Common	Sight and audible
Bird	Buzzard <i>Buteo buteo</i>	Single	Sight and audible
Mammal	Red squirrel <i>Sciurus vulgaris</i>	No sightings	No observations
Mammal	Pine marten <i>Martes martes</i>	No sightings	No observations
Mammal	Badger <i>Meles meles</i>	No sightings	No observations

Tuesday 6th August 2019 from 8.00am			
Point count recording method			
Group	Species	Abundance	Observation
Bird	Chaffinch <i>Fringilla coelebs</i>	Common	Sight and audible
Bird	Blue tit <i>Cyanistes caeruleus</i>	Common	Sight and audible
Bird	Great tit <i>Parus major</i>	Common	Sight and audible
Bird	Coal tit <i>Periparus ater</i>	Common	Sight and audible
Bird	Long tailed tit <i>Aegithalos caudatus</i>	Single group	Sight and audible
Bird	Blackbird <i>Turdus merula</i>	Frequent	Sight and audible
Bird	Wood pigeon <i>Columba palumbus</i>	Frequent	Sight and audible
Bird	Wren <i>Troglodytes troglodytes</i>	Common	Sight and audible
Bird	Song thrush <i>Turdus philomelos</i>	Single	Sight and audible
Bird	Dunnock <i>Prunella modularis</i>	Frequent	Sight and audible
Bird	Robin <i>Erithacus rubecula</i>	Common	Sight and audible
Bird	Willow warbler <i>Phylloscopus trochilus</i>	Single	Sight and audible
Bird	Chiffchaff <i>Phylloscopus collybita</i>	Single	Audible
Bird	Carrion crow <i>Corvus corone</i>	Single	Audible
Bird	Jay <i>Garullus glandarius</i>	Single	Audible
Bird	Tree sparrow <i>Passer montanus</i>	Frequent	Sight
Mammal	Red squirrel <i>Sciurus vulgaris</i>	No sightings	No evidence of recent activity. Historic spruce cone feeding noted.
Mammal	Pine marten <i>Martes martes</i>	No sightings	No sightings or characteristic marks.
Mammal	Badger <i>Meles meles</i>	No sightings	No sightings, latrines or setts.

Tuesday 13 th August 2019 from 8.00am			
Point count recording method			
Group	Species	Abundance	Observation
Bird	Chaffinch <i>Fringilla coelebs</i>	Common	Sight and audible
Bird	Blue tit <i>Cyanistes caeruleus</i>	Common	Sight and audible plus chick feeding
Bird	Great tit <i>Parus major</i>	Common	Sight and audible
Bird	Coal tit <i>Periparus ater</i>	Common	Sight and audible
Bird	Blackbird <i>Turdus merula</i>	Frequent	Sight and audible
Bird	Wood pigeon <i>Columba palumbus</i>	Frequent	Sight and audible
Bird	Feral pigeon <i>Columba livia domestica</i>	Single	Sight
Bird	Wren <i>Troglodytes troglodytes</i>	Common	Sight and audible
Bird	Song thrush <i>Turdus philomelos</i>	Single	Sight and audible
Bird	Dunnock <i>Prunella modularis</i>	Frequent	Sight and audible
Bird	Robin <i>Erithacus rubecula</i>	Common	Sight and audible
Bird	Willow warbler <i>Phylloscopus trochilus</i>	Single	Sight and audible
Bird	Chiffchaff <i>Phylloscopus collybita</i>	Single	Audible
Bird	Yellowhammer <i>Emberiza citrinella</i>	Single	Sight and audible
Bird	Tree sparrow <i>Passer montanus</i>	Frequent	Sight
Mammal	Red squirrel <i>Sciurus vulgaris</i>	No sightings	No evidence of recent activity. Historic spruce cone feeding noted.
Mammal	Pine marten <i>Martes martes</i>	No sightings	No sightings or characteristic marks.
Mammal	Badger <i>Meles meles</i>	No sightings	No sightings, latrines or setts.

Legal protection

All wild birds are protected under part 1 of the Wildlife and Countryside Act, 1981.

Therefore, in the UK it is an offence to:

- Take, damage or destroy the nest of any wild bird whilst it is being built or in use
- Kill, injure or take any wild bird
- Take or destroy the eggs of any wild bird

To avoid committing an offence no felling works should be carried out on a tree that is being used by nesting birds. Nesting is deemed to be over when the young have fully fledged. Certain species, which are listed in Schedule 1 of the Wildlife and Countryside Act, receive special protection. In these cases any form of intentional or reckless disturbance when they are nesting or rearing dependant young, constitutes an offence. Wild mammals in Scotland are protected, or their killing is regulated, by a number of statutes including:

The Wildlife and Countryside Act 1981

Section 9 prohibits the intentional killing, injuring or taking of, and the possession of or trade in, the wild animals listed in Schedule 5, such as pine marten and red squirrel. In addition, places used for shelter and protection by Schedule 5 animals are safeguarded against intentional damage, destruction and obstruction and against intentional disturbance whilst those animals are occupying those places.

To avoid committing an offence no felling works should be carried out on a tree that is being used by squirrels or pine marten. In these cases any form of intentional or reckless disturbance or destruction constitutes an offence.

Summary/conclusion

The Lundie Muir Plantation surveyed contains common species of birds that would be expected within a mixed and loosely planted coniferous plantation. The absence of the abundance of bird nest remains, except wood pigeon, was not as expected and assumptions are that the recorded birds are likely to breed more readily in the surrounding countryside in alternative areas out-with that of the Lundie Muir Plantation. The mammal absence of red or grey squirrels, either resident feeding, with active dreys, or in passage, was surprising in the first instance as historical cone remains were recorded. These cones were however degraded and were estimated to be consumed from the previous year at the earliest. The visual evidence of severe litter dumping in the southern edges of the survey area and into the adjacent Piper Dam woodland reflects the severe disturbance by people, which, with the presence of the busy A923, and an abundance of alternative quality similar habitats in the immediate surrounding area, is a likely cause for the lack of resident squirrel use and breeding birds in this survey area. Badger and pine marten absence was not unexpected.

Author Profile

has held a continual professional conservation role for over 35 years, has studied Zoo Management and Animal Husbandry at the National Extension College and Manchester Metropolitan University and many additional animal related subjects within zoological organisations and further education facilities throughout the UK. He currently holds the position of Conservation Network Manager in a zoological collection in Dundee and has, for almost ten years, held a position on the British and Irish Association of Zoos and Aquariums (BIAZA) Education and Training Committee, BIAZA Conservation Education Committee, chair of the BIAZA Regional Education Forum for Scotland and Northern Ireland and holds an institutional role in the International Zoo Educators Association. Currently, his daily role consists of developing and managing in-situ and ex-situ conservation, education and research programmes both locally and across the world for several conservation organisations including the European Association of Zoos and Aquaria (EAZA) and BIAZA. He is regarded as an active conservationist contributing greatly to nature and wildlife subjects for studies within the UK and South America (for the Maldonado black caiman crocodile research project in the Peruvian rainforest). regularly delivers lectures on these subjects to professional bodies across the UK and Europe and currently delivers zoological lectures to students of the recently and jointly developed SQA accredited Zoo Animal Behaviour and Welfare qualification at Dundee and Angus College. Having held a schedule 1 license for osprey, golden eagle and peregrine since 1992 and a bird ringing license since 1990 he is prolific with the study of native birds and wildlife. has held the position of Tayside Osprey Data Coordinator with the Tayside Raptor Study Group and regularly contributes to national bird and mammal population surveys and scientific research works in Scotland and West Africa.