

## Summary of activities on the China Fleet golf course

In order to investigate the foraging site selection of pre-selected 'target bird species' (Woodpigeon, Blackbird and Carrion Crow) on golf courses in the UK a study was conducted on China Fleet golf course between 05<sup>th</sup> of April and 11<sup>th</sup> of May 2023. GPS-tracking was applied to receive accurate data regarding the locations of tagged individuals during at least one day. This data is required in order to refine the risk assessment for plant protection products as part of their registration process, that might be applied to the lawn of golf courses (e.g. to counteract the development of fungal disease).

Table 1. List of target species, number of captures and tagged individuals.

Common name	Latin name	N° of captures	N° of tagged birds
Blackbird	<i>Turdus merula</i>	14	4
Carrion Crow	<i>Corvus corone</i>	7	7
Woodpigeon	<i>Columba palumbus</i>	2	2



Figure 1 Carrion Crow marked with GPS.



Figure 2 Blackbird marked with GPS.

Individuals of the target species were trapped using different methods in order to mount the GPS-tag on their back. Seven Carrion crows (Figure 1), four Blackbirds (Figure 2) and two Woodpigeons were tagged on the China Fleet golf course during the course of the study (Table 1).

Beside the target species some other bird species were caught in the traps, ringed and released (Table 2, Figure 3).

Table 2 Number of non-target species trapped and ringed

Common name	Latin name	N° of captures
Blackcap	<i>Sylvia atricapilla</i>	4
Blue Tit	<i>Cyanistes caeruleus</i>	8
Chaffinch	<i>Fringilla coelebs</i>	2
Chiffchaff	<i>Phylloscopus collybita</i>	6
Dunnock	<i>Prunella modularis</i>	2
Goldcrest	<i>Regulus regulus</i>	1
Goldfinch	<i>Carduelis carduelis</i>	2
Great Spotted Woodpecker	<i>Dendrocopos major</i>	1
Great Tit	<i>Parus major</i>	6
Long-tailed Tit	<i>Aegithalos caudatus</i>	2
Mistle Thrush	<i>Turdus viscivorus</i>	1
Nuthatch	<i>Sitta europaea</i>	1
Robin	<i>Erithacus rubecula</i>	12
Song Thrush	<i>Turdus philomelos</i>	1
Wren	<i>Troglodites troglodites</i>	8



Figure 3 Wren trapped and ringed on the golf course.

During the field work several bird species were observed in the area of the golf course (Table 3).

Table 3 List of bird species observed in the golf course during the course of the study

<b>Common Name</b>	<b>Scientific Name</b>
Barn Swallow	<i>Hirundo rustica</i>
Blackbird	<i>Turdus merula</i>
Blackcap	<i>Sylvia atricapilla</i>
Black-headed Gull	<i>Chroicocephalus ridibundus</i>
Black-tailed Godwit	<i>Limosa limosa</i>
Blue Tit	<i>Cyanistes caeruleus</i>
Bullfinch	<i>Pyrrhula pyrrhula</i>
Canada Goose	<i>Branta canadensis</i>
Carrion Crow	<i>Corvus corone</i>
Chaffinch	<i>Fringilla coelebs</i>
Chiffchaff	<i>Phylloscopus collybita</i>
Coal Tit	<i>Parus ater</i>
Collared-Dove	<i>Streptopelia decaocto</i>
Common Buzzard	<i>Buteo buteo</i>
Common Greenshank	<i>Tringa nebularia</i>
Common Sandpiper	<i>Actitis hypoleucos</i>
Common Shelduck	<i>Tadorna tadorna</i>
Common Swift	<i>Apus apus</i>
Dunnock	<i>Prunella modularis</i>
Egyptian Goose	<i>Alopochen aegyptiaca</i>
Eurasian Coot	<i>Fulica atra</i>
Eurasian Green Woodpecker	<i>Picus viridis</i>
Goldcrest	<i>Regulus regulus</i>
Goldfinch	<i>Carduelis carduelis</i>
Gray Heron	<i>Ardea cinerea</i>
Great Cormorant	<i>Phalacrocorax carbo</i>
Great Spotted Woodpecker	<i>Dendrocopos major</i>
Great Tit	<i>Parus major</i>
Greenfinch	<i>Chloris chloris</i>
Herring Gull	<i>Larus argentatus</i>
House Sparrow	<i>Passer domesticus</i>
Jackdaw	<i>Corvus monedula</i>
Jay	<i>Garrulus glandarius</i>
Lesser Black-backed Gull	<i>Larus fuscus</i>
Linnet	<i>Linaria cannabina</i>
Little Egret	<i>Egretta garzetta</i>
Little Grebe	<i>Tachybaptus ruficollis</i>
Long-tailed Tit	<i>Aegithalos caudatus</i>
Magpie	<i>Pica pica</i>



Common Name	Scientific Name
Mallard	<i>Anas platyrhynchos</i>
Marsh Tit	<i>Poecile palustris</i>
Mistle Thrush	<i>Turdus viscivorus</i>
Moorhen	<i>Gallinula chloropus</i>
Northern Wheatear	<i>Oenanthe oenanthe</i>
Nuthatch	<i>Sitta europaea</i>
Ring-necked Pheasant	<i>Phasianus colchicus</i>
Robin	<i>Erithacus rubecula</i>
Rock Pigeon	<i>Columba livia</i>
Rook	<i>Corvus frugilegus</i>
Sand martin	<i>Riparia riparia</i>
Song Thrush	<i>Turdus philomelos</i>
Sparrowhawk	<i>Accipiter nisus</i>
Spotted Redshank	<i>Tringa erythropus</i>
Tawny Owl	<i>Strix aluco</i>
Tufted Duck	<i>Aythya fuligula</i>
White Wagtail	<i>Motacilla alba</i>
Willow Warbler	<i>Phylloscopus trochillus</i>
Woodpigeon	<i>Columba palumbus</i>
Wren	<i>Troglodytes troglodytes</i>

In order to assess the presence of birds at certain sites on the golf course, motion triggered trail cameras were set up. The animals recorded by these cameras on the China Fleet golf course are listed in Table 4.

Table 4 List of bird and mammal species recorded by the trail cameras

Birds		Mammals	
Common name	Latin name	Common name	Latin name
Blackbird	<i>Turdus merula</i>	Budger	<i>Meles meles</i>
Blue Tit	<i>Cyanistes caeruleus</i>	Dog	<i>Canis lupus familiaris</i>
Carrion Crow	<i>Corvus corone</i>	Grey Squirrel	<i>Sciurus griseus</i>
Chaffinch	<i>Fringilla coelebs</i>	Hedgehog	<i>Erinaceus europaeus</i>
Dunnock	<i>Prunella modularis</i>	Rabbit	<i>Oryctolagus cuniculus</i>
Great Tit	<i>Parus major</i>	Red Fox	<i>Vulpes vulpes</i>
Jackdaw	<i>Corvus monedula</i>	Wood Mouse	<i>Apodemus sylvaticus</i>
Jay	<i>Garrulus glandarius</i>		
Magpie	<i>Pica pica</i>		
Mistle Thrush	<i>Turdus viscivorus</i>		
Ring-necked Pheasant	<i>Phasianus colchicus</i>		
Robin	<i>Erithacus rubecula</i>		
Song Thrush	<i>Turdus philomelos</i>		
Tawny Owl	<i>Strix aluco</i>		
Woodpigeon	<i>Columba palumbus</i>		



Figure 4 *Photo of a badger taken by a trail camera.*