

**Knepp Castle Estate**  
**Breeding Bird Survey**  
**2010**

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## **1.0 INTRODUCTION**

A repeat survey of the breeding bird communities present within two areas of the Knepp Castle Estate was carried out in spring/early summer 2010 following similar surveys in 2005, 2007, 2008 and 2009. The purpose of the survey was to provide a comparison with the results of the previous surveys in relation to the conversion of the estate from intensive arable to a near-natural grazing system.

## **2.0 METHODOLOGY**

### **2.1 Surveyor**

The survey was carried out by Paul James who also undertook the previous surveys detailed above.

### **2.2 Field methods**

The same two transects were surveyed as in previous years: the first in the area north of the A272 and east of Shipley Road (transect A) and the second in the area south of Countryman Lane and west of New Barn Farm (transect B). As in 2008 and 2009, a total of ten visits was made to each transect in the period from late March – June. The dates on which visits were made were as follows: 29 March, 5 April, 13 April, 20 April, 27 April, 7 May, 20 May, 4 June, 11 June and 18 June. Each visit was made in good weather. The surveys were conducted by following the transect routes and recording the species encountered (by sight or sound) on large scale maps using the standard Common Birds Census species and activity codes (Marchant 1983). These visit maps were then analysed to provide an estimate of the number of territories found.

Common names used in this report follow those in the British Ornithologists' Union's 'The British List; a checklist of the birds of Britain (7<sup>th</sup> edition).

## **3.0 SURVEY RESULTS**

### **3.1 Species recorded**

A total of 60 species was recorded in 2010 (see Appendices 1 - 3), a very similar figure to the 61 species recorded in 2009. 'New' species recorded in 2010 were lesser spotted woodpecker and raven bringing the total since 2005 to 77 (see Appendix 4).

### **3.2 Species of Conservation Concern**

Of the 60 species recorded in the 2010 survey, 12 were Red List Species of High Conservation Concern and 15 Amber List Species of Medium Conservation Concern as identified by the latest assessment of the status of all of the UK's 246 regularly occurring birds (Eaton *et al* 2009). Red list species are those that are globally threatened according to IUCN criteria; those whose population or range has declined rapidly in recent years; and those that have declined historically and not shown a substantial recent recovery. Amber list species are those with an unfavourable conservation status in Europe; those whose population or range has declined moderately in recent years; those whose population has declined historically but made a significant recent recovery; rare breeders; and those with internationally important or localised populations. Native species that fulfil none of the criteria are green listed.

## **4.0 DISCUSSION**

### **4.1 Species present**

A comparison of the results of the 2010 survey (Appendix 2) with those for 2009 and 2008 (which were also based on a total of ten site visits) reveals that the composition of the species list has remained very similar over the three years. This is reflected in the number of species recorded each year (60 in 2010, 61 in 2009 & 58 in 2008). The results for 2010 do however reveal a downward trend in the number of territories for some of the more common resident birds such as dunnock, robin and wren whereas numbers of some summer visitors such as blackcap and chiffchaff remained more or less unchanged. Given that the winter of 2009/10 was the coldest since 1978/79 (Met Office) it is likely that the severe weather experienced last winter depleted populations of some resident songbirds and that they have yet to recover. Numbers of skylark and whitethroat were again well up on 2008 but slightly down compared with 2009.

There were a number of significant records in 2010. These included a pair of lesser spotted woodpeckers (red list) seen along transect B on 5 April. Despite extensive searching they were not seen again though the likelihood is that this scarce and declining species nested somewhere on the Estate in 2010. Up to three pairs of lapwing (red list) were seen displaying in the fields adjacent to transect B in April. This is the first time the species has been recorded since 2005 though it is thought that no nesting attempts occurred in the study area. The birds did however eventually settle down and nest in a field to the north of Countryman Lane. A pair of ravens was seen on 13 April. The likelihood is that these birds were the pair that nested in a tree by Kneppmill Pond (A Kitson *pers comm.*) though further sightings in the same area on 7 and 20 May raises the possibility that there may be more than one pair on the Estate. A woodlark (red list) heard singing along transect B on 18 June only was the first record since 2008 and was presumably a failed breeder from elsewhere.

## **5.0 REFERENCES**

Eaton MA *et al* (2009). Birds of Conservation Concern 3. The population status of birds in the United Kingdom, Channel Islands and Isle of Man. *British Birds* 102: 296 - 341.

Marchant J 1983. *BTO Common Birds Census Instructions*. Maund & Irvine, Tring.

**Appendix 1 – List of species recorded on the Knepp Castle Estate, spring 2010**

<b>Species</b>	<b>Species code</b>	<b>Green listed</b>	<b>Amber listed</b>	<b>Red listed</b>	<b>Introduced</b>
Canada goose	CG				*
Mandarin	MN				*
Teal	T		*		
Mallard	MA	*			
Pheasant	PH				*
Grey heron	H	*			
Sparrowhawk	SH	*			
Common buzzard	BZ	*			
Kestrel	K		*		
Moorhen	MH	*			
Lapwing	L			*	
Herring gull	HG			*	
Stock dove	SD		*		
Woodpigeon	WP	*			
Collared dove	CD	*			
Turtle dove	TD			*	
Cuckoo	CU			*	
Barn owl	BO		*		
Swift	SI		*		
Kingfisher	KF		*		
Green woodpecker	G		*		
Great spotted woodpecker	GS	*			
Lesser spotted woodpecker	LS			*	
Woodlark	WL		*		
Skylark	S			*	
Meadow pipit	MP		*		
Wren	WR	*			
Dunnock	D		*		
Robin	R	*			
Nightingale	N		*		
Blackbird	B	*			
Song thrush	ST			*	
Mistle thrush	M		*		
Lesser whitethroat	LW	*			
Whitethroat	WH	*			
Garden warbler	GW	*			
Blackcap	BC	*			
Chiffchaff	CC	*			
Willow warbler	WW		*		
Goldcrest	GC		*		
Long-tailed tit	LT	*			
Coal tit	CT	*			
Blue tit	BT	*			
Great tit	GT	*			
Marsh tit	MT			*	
Nuthatch	NH	*			
Treecreeper	TC	*			
Jay	J	*			
Magpie	MG	*			
Jackdaw	JD	*			
Rook	RO	*			

Carrion crow	C	*			
Raven	RN	*			
House sparrow	HS			*	
Chaffinch	CH	*			
Goldfinch	GO	*			
Linnet	LI			*	
Bullfinch	BF		*		
Yellowhammer	Y			*	
Reed bunting	RB			*	

**Appendix 2 – Number of territories, spring 2010**

Species	Species code	Transect A				
		2005	2007	2008	2009	2010
Canada goose	CG					1
Mandarin	MN				1	
Mallard	MA				1	1
Pheasant	PH	2				1
Common buzzard	BZ		1		1	1
Kestrel	K		1			
Hobby	HY				1	
Stock dove	SD	2	1	2	1	1
Woodpigeon	WP	1	3		2	1
Cuckoo	CU		1			
Little owl	LO		2	2		
Green woodpecker	G		1	1	1 - 2	2?
Great Spotted Woodpecker	GS	1	3	3	4	1
Sky lark	S		1	2	1	1
Pied wagtail	PW	1				
Wren	WR	11	12	21	17	10
Dunnock	D	1	3	2	4	4
Robin	R	6	8	23	20	15
Blackbird	B	5	5	2	4	1
Song thrush	ST	1	3	2	3	1
Mistle thrush	M			1	1	
Whitethroat	WH			1		1
Garden warbler	GW	1	1	1	1	
Blackcap	BC	3	5	3	5	6
Chiffchaff	CC	4	4	7	8	7
Willow warbler	WW		1	1	2	1
Goldcrest	GC	2	1	4	4	1
Long-tailed tit	LT		2	2	4	1
Marsh tit	MT	1	1	2		2
Coal tit	CT	1	1	3	1	2
Blue tit	BT	5	2	8	7	7
Great tit	GT	2	3	8	10	4
Nuthatch	NH	4	1	3	3	3
Treecreeper	TC		1	2	3	1
Jay	J		2			
Magpie	MG	1	2			
Jackdaw	JD				1	2
Carrion crow	C			1		
Chaffinch	CH	6	9	13	15	9
Greenfinch	GR	1				
Goldfinch	GO		1	1		2
Bullfinch	BF	1			1	
Yellowhammer	Y	2		1	1	

		Transect B				
Species	Species code	2005	2007	2008	2009	2010
Canada goose	CG		1			
Mallard	MA		2	1		
Grey partridge	P				1	
Common buzzard	BZ		1	1		1
Kestrel	K	1				
Pheasant	PH	1				
Moorhen	MH	1	2	2	4	3
Stock dove	SD	2	1	3		2
Woodpigeon	WP	2	2	4		1
Collared dove	CD				1	
Turtle dove	TD		2	2	2	2
Cuckoo	CU		2	2	3	1
Barn owl	BO				1	
Green woodpecker	G	2	4	2	1	1
Great Spotted Woodpecker	GS		2	1	1	1
Wood lark	WL			2		
Sky Lark	S	2	4	9	11	9
Barn swallow	SL		1			
Pied wagtail	PW			1		
Wren	WR	6	13	16	16	12
Dunnoek	D	1	6	12	13	5
Robin	R	8	5	21	16	14
Nightingale	N	1	5	4	5	4
Blackbird	B	2	4	6	7	7
Song thrush	ST	3	4	4	3	4
Mistle thrush	M			1		1
Reed warbler	RW			1		
Lesser Whitethroat	LW			4	3	2
Whitethroat	WH	10	5	7	19	16
Garden warbler	GW	4	5	6	6	3
Blackcap	BC	4	7	9	8	9
Chiffchaff	CC	6	8	14	13	13
Long-tailed tit	LT	1	1	3	1	1
Blue tit	BT	3	5	9	8	6
Great tit	GT	2	3	10	8	7
Nuthatch	NH		2	1	2	1
Treecreeper	TC	1		1	2	
Jay	J	2		2	1	
Magpie	MG		1	2	1	1
Jackdaw	JD	1	1	1	1	1
Rook	RO				8	10
Carrion crow	C			2		
House sparrow	HS		1	1	1	
Chaffinch	CH	10	12	18	14	21
Goldfinch	GO			1	1	1
Linnet	LI	1		1	2	1
Bullfinch	BF	1	1	5	3	2
Yellowhammer	Y	3	3	8	6	4
Reed bunting	RB			2	1	1



### Appendix 3 – Additional species recorded

Species	
Mandarin	Transect A: A pair in flight near the Old Keepers Cottage on 20 April. Transect B: A pair in flight on 13 April. Breeds locally.
Teal	Transect B: A pair on 5 April only. Winter visitor.
Mallard	Transect A: A male at the pond in Coate's Furzefield on 27 April. Transect B: A female on 13 April and a male on Lower Barn pond on 27 April. Breeds locally.
Grey heron	Transect A: Singles on 5 & 13 April. Breeds locally.
Sparrowhawk	Transect B: One in flight on 20 May.
Kestrel	Transect B: One in flight on 20 May.
Lapwing	Transect B: Up to 3 pairs displaying in April. Nested just outside the area in 2010 in a field north of Countryman Lane.
Herring gull	Transect A: One N on 5 April, 6 S on 13 April
Collared dove	Transect B: One at Blonks on 27 April
Barn owl	Transect B: Singles on 5 April & 20 May. A pair flew out of the nestbox in Lower Barn on 21 April but were not seen subsequently
Swift	Transect B: Two in flight on 7 May.
Kingfisher	Transect B: One seen in flight carrying a fish on 13 April was indicative of local breeding.
Lesser spotted woodpecker	Transect B: A pair on 5 April only.
Woodlark	Transect B: One singing on 18 June Only.
Meadow pipit	Transect B: Four flew N on 5 April
Raven	Transect B: A pair on 13 April. Single birds on 7 and 20 May.
House sparrow	Transect B: A male at Blonks on 5 April

**Appendix 4 – List of species recorded on the Knepp Castle Estate, 2005 - 10**

<b>Species</b>	<b>Green listed</b>	<b>Amber listed</b>	<b>Red listed</b>	<b>Introduced</b>
Greylag goose				*
Canada goose				*
Mandarin				*
Teal		*		
Mallard	*			
Red-legged partridge				*
Grey partridge			*	
Pheasant				*
Grey heron	*			
Red kite		*		
Sparrowhawk	*			
Common buzzard	*			
Kestrel		*		
Hobby	*			
Moorhen	*			
Lapwing			*	
Woodcock		*		
Herring gull			*	
Stock dove		*		
Woodpigeon	*			
Collared dove	*			
Turtle dove			*	
Cuckoo			*	
Barn owl		*		
Little owl				*
Tawny owl	*			
Swift		*		
Kingfisher		*		
Green woodpecker		*		
Great spotted woodpecker	*			
Lesser spotted woodpecker			*	
Woodlark		*		
Skylark			*	
Swallow		*		
Meadow pipit		*		
Pied wagtail	*			
Wren	*			
Dunnock		*		
Robin	*			
Nightingale		*		
Blackbird	*			
Song thrush			*	
Redwing			*	
Mistle thrush		*		
Reed warbler	*			
Blackcap	*			
Garden warbler	*			
Lesser whitethroat	*			
Whitethroat	*			
Chiffchaff	*			
Willow warbler		*		

Goldcrest		*		
Firecrest	*			
Long-tailed tit	*			
Blue tit	*			
Great tit	*			
Coal tit	*			
Marsh tit			*	
Nuthatch	*			
Treecreeper	*			
Jay	*			
Magpie	*			
Jackdaw	*			
Rook	*			
Carrion crow	*			
Raven	*		*	
Starling				
House sparrow			*	
Chaffinch	*			
Brambling	*			
Greenfinch	*			
Goldfinch	*			
Linnet			*	
Lesser redpoll			*	
Bullfinch		*		
Yellowhammer			*	
Reed bunting			*	