

Knepp Castle Estate
Breeding Bird Survey
2011

By

Paul James B.Sc, M.Sc

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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 2011 following similar surveys in 2005 and 2007 – 10. As in previous years, the survey was designed to:

- Identify the bird species breeding on site and to estimate the number of territories of each, so providing 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.
- Highlight the conservation status of the bird species utilising the site.

2.0 METHODOLOGY

2.1 Surveyor

The survey was carried out by Paul James, an experienced local ornithologist, 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 previous years, a total of ten visits was made to each transect in the period from March – June. The dates on which visits were made were as follows: 15th March, 24th March, 8th April, 14th April, 18th April, 28th April, 11th May, 18th May, 25th May and 1st 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). At the end of the survey these registrations were copied across onto species maps which can then used to estimate the number of territories for each species (Bibby *et al* 2000, Marchant 1983). For the purpose of this survey, a territory was defined by the presence of a singing male on two or more dates, a bird (or pair) behaving territorially on two or more dates, alarm calls from adults or food being carried by adults.

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

3.0 SURVEY RESULTS

3.1 Species recorded

A total of 56 species was recorded in 2011 (see Appendices 1 - 3), slightly down compared with the 60 species recorded in 2010 and 61 species in 2009. Just one 'new' species was noted in 2011 (snipe) bringing the total since 2005 to 78 (see Appendix 4).

3.2 Species of Conservation Concern

Of the 56 species recorded in the 2011 survey, ten were Red List Species of High Conservation Concern and 12 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. Non-native species such as Canada goose and mandarin are not assessed.

4.0 DISCUSSION

4.1 Species present

A comparison of the results of the 2011 survey (Appendix 2) with those for previous years shows a slight reduction in the number of species recorded though this is not considered significant. The results do however reveal that numbers of many species especially the summer visitors such as blackcap, chiffchaff and whitethroat were again more or less unchanged. The most significant decline was that shown by skylark along transect B (down from 11 territories in 2009 to four in 2011). This is most likely attributable to the invasion of many of the fields by brambles so reducing the availability of coarse grass for nesting. There were no records of woodlark in 2011, a species which requires bare areas for nesting. The growth of brambles has however benefited whitethroat (up from seven territories in 2008 to 16 in 2011).

As in previous years, there were a number records of more notable species. Those that bred or probably bred on the estate in 2011 included hobby, turtle dove, cuckoo, barn owl, nightingale and raven. The presence of two turtle dove territories along transect B, for the fifth year in succession, is especially welcome given the calamitous decline that occurred nationally. A lapwing was observed displaying over the field immediately south of Hampshires Farm on 8th April though it was unlikely that nesting was attempted this year, probably as a result of the very dry spring.

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 2011

Species	Species code	Green listed	Amber listed	Red listed	Not assessed
Canada goose	CG				*
Mandarin	MN				*
Teal	T		*		
Mallard	MA	*			
Pheasant	PH				*
Grey heron	H	*			
Common buzzard	BZ	*			
Hobby	HY	*			
Moorhen	MH	*			
Lapwing	L			*	
Snipe	SN		*		
Herring gull	HG			*	
Stock dove	SD		*		
Woodpigeon	WP	*			
Collared dove	CD	*			
Turtle dove	TD			*	
Cuckoo	CU			*	
Barn owl	BO		*		
Tawny owl	TO	*			
Green woodpecker	G		*		
Great spotted woodpecker	GS	*			
Skylark	S			*	
Swallow	SL		*		
Wren	WR	*			
Dunnock	D		*		
Robin	R	*			
Nightingale	N		*		
Blackbird	B	*			
Song thrush	ST			*	
Redwing	RE			*	
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	*			
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			*	

Appendix 2 – Number of territories, spring 2011

		Transect A				
Species	Species code	2007	2008	2009	2010	2011
Canada goose	CG				1	1
Mandarin	MN			1		1
Mallard	MA			1	1	
Pheasant	PH				1	
Common buzzard	BZ	1		1	1	1
Kestrel	K	1				
Hobby	HY			1		1
Stock dove	SD	1	2	1	1	
Woodpigeon	WP	3		2	2	
Cuckoo	CU	1				
Little owl	LO	2	2			
Green woodpecker	G	1	1	1 - 2	2?	
Great Spotted Woodpecker	GS	3	3	4	1	1
Skylark	S	1	2	1	1	1
Pied wagtail	PW					
Wren	WR	12	21	17	10	11
Duncock	D	3	2	4	4	1
Robin	R	8	23	20	15	13
Blackbird	B	5	2	4	1	
Song thrush	ST	3	2	3	1	
Mistle thrush	M		1	1		
Whitethroat	WH		1		1	
Garden warbler	GW	1	1	1		
Blackcap	BC	5	3	5	6	6
Chiffchaff	CC	4	7	8	7	7
Willow warbler	WW	1	1	2	1	
Goldcrest	GC	1	4	4	1	3
Long-tailed tit	LT	2	2	4	1	2
Marsh tit	MT	1	2		2	
Coal tit	CT	1	3	1	2	1
Blue tit	BT	2	8	7	7	4
Great tit	GT	3	8	10	4	5
Nuthatch	NH	1	3	3	3	2
Treecreeper	TC	1	2	3	1	3
Jay	J	2				
Magpie	MG	2				
Jackdaw	JD			1	2	
Carrion crow	C		1			
Chaffinch	CH	9	13	15	9	9
Greenfinch	GR					
Goldfinch	GO	1	1		2	1
Bullfinch	BF			1		
Yellowhammer	Y		1	1		

		Transect B				
Species	Species code	2007	2008	2009	2010	2011
Canada goose	CG	1				
Mallard	MA	2	1			2
Grey partridge	P			1		
Common buzzard	BZ	1	1		1	
Kestrel	K					
Pheasant	PH					
Moorhen	MH	2	2	4	3	2
Stock dove	SD	1	3		2	2
Woodpigeon	WP	2	4		1	3
Collared dove	CD			1		
Turtle dove	TD	2	2	2	2	2
Cuckoo	CU	2	2	3	1	?
Barn owl	BO			1		
Green woodpecker	G	4	2	1	1	
Great Spotted Woodpecker	GS	2	1	1	1	1
Woodlark	WL		2			
Skylark	S	4	9	11	9	4
Swallow	SL	1				
Pied wagtail	PW		1			
Wren	WR	13	16	16	12	14
Dunnoek	D	6	12	13	5	7
Robin	R	5	21	16	14	18
Nightingale	N	5	4	5	4	4
Blackbird	B	4	6	7	7	2
Song thrush	ST	4	4	3	4	6
Mistle thrush	M		1		1	1
Reed warbler	RW		1			
Lesser whitethroat	LW		4	3	2	1
Whitethroat	WH	5	7	19	16	16
Garden warbler	GW	5	6	6	3	7
Blackcap	BC	7	9	8	9	11
Chiffchaff	CC	8	14	13	13	12
Long-tailed tit	LT	1	3	1	1	3
Blue tit	BT	5	9	8	6	7
Great tit	GT	3	10	8	7	9
Nuthatch	NH	2	1	2	1	2
Treecreeper	TC		1	2		
Jay	J		2	1		
Magpie	MG	1	2	1	1	1
Jackdaw	JD	1	1	1	1	2
Rook	RO			8	10	12
Carrion crow	C		2			1
House sparrow	HS	1	1	1		
Chaffinch	CH	12	18	14	21	13
Goldfinch	GO		1	1	1	1
Linnet	LI		1	2	1	
Bullfinch	BF	1	5	3	2	1
Yellowhammer	Y	3	8	6	4	2
Reed bunting	RB		2	1	1	

Appendix 3 – Additional species recorded

Species	
Teal	Transect B: Two on 15 th March
Grey heron	Transect B: One in flight on 8 th April
Lapwing	Transect B: One displaying over field south of Hampshires Farm on 8 th April
Snipe	Transect B: One flushed on 8 th April flew off N and was presumably a migrant.
Herring gull	Transect A: Two flew N on 8 th April Transect B: Thirteen flew N on 28 th April
Collared dove	Transect B: Two in flight on 24 th March, one in flight nr Brookhouse Farm on 28 th April
Cuckoo	Transect A: A singing male on 11 th May Transect B: Singing males on 8 th April, 11 th May and 1 st June
Barn owl	Transect B: A pair flew from the nestbox in Lower Barn on 24 th March but were not seen subsequently
Tawny owl	Transect A: One heard hooting on 1 st June
Swallow	Transect B: Two flew N on 11 May. A pair in flight nr Blonks Barn on 1 st June.
Redwing	Transect B: 25 on 15 th March
Willow warbler	Transect B: Two on 8 th April
Raven	Transect A: One on an electricity pylon on 15 th March Transect B: A pair on 11 th May but not seen subsequently
House sparrow	Transect B: A female on 24 th March
Linnet	Transect B: Four on 1 st June

Appendix 4 – List of species recorded on the Knepp Castle Estate, 2005 - 11

Species	Green listed	Amber listed	Red listed	Introduced
Greylag goose				*
Canada goose				*
Mandarin				*
Teal		*		
Mallard	*			
Red-legged partridge				*
Grey partridge			*	
Pheasant				*
Grey heron	*			
Red kite		*		
Sparrowhawk	*			
Common buzzard	*			
Kestrel		*		
Hobby	*			
Moorhen	*			
Lapwing			*	
Snipe				
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			*	