

# 2020 Report

**PUBLIC VERSION** 

**Compiled Dec 2020 / Jan 2021** 



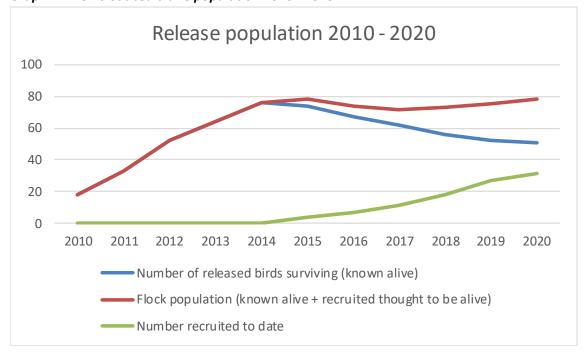
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# **0. Executive Summary**

Original release population survival figures:	
No. of the 93 reintroduced birds known surviving at year end, Dec. 2020	51
% of reintroduced birds known surviving at year end, Dec 2020	55%
No. of birds known to have died during 2020	0
No. of birds gone missing <1yr during 2020	2
Reintroduced population 2020 breeding season summary:	
No. of breeding pairs in 2020 year	27
No. of breeding pairs that hatched chicks in 2020 year	10
No. of fledged young in 2020 year	4
Breeding productivity in 2020 year (fledged chicks per conf/prob breeding	0.27
pair)	
Total reintroduced (flock) population size:	
Number fledged young recruited to date	31
Number 2 <sup>nd</sup> generation birds thought to be surviving	27
Total flock population (min) at year end, Dec. 2020 (no. released birds	51+27=78
known to survive + no. 2 <sup>nd</sup> generation surviving)	
% of original release population in the whole flock	65%

Graph 1 . Reintroduced crane population 2010 - 2020



### 1. Release population figures

#### 1.1 Release population summary

Previous year's figures	
Number of 'Known alive*' release birds at end previous report year (31st Dec 2019)	52
Number of 'Maximum possible*' release birds at end previous report year (31st Dec 2019)	56
This year's figures	
Number of 'Known alive' release birds at end of current report year (31st Dec 2020). This	51
includes birds missing <4mths but does not include those missing (>4mths and <1yr)	
Number of 'Maximum possible' release birds (this includes birds missing <1yr) at end of	53
current report year (31st Dec 2020)	
Cause of change in figures	
Number of release birds known to have died during report year	0
Release birds moving into 'unknown >1yr' status during period Jan 1st 2020 - Dec 31st 2020	2
Gibble and Ziggy	
Total release birds moving into 'unknown <1yr' status during period Jan 1st 2020 - Dec	2
31 <sup>st</sup> 2020	
Wycliffe and Regina	

#### **Summary:**

Gibble (Re/Bk/Bl) female 2012 cohort has been missing since February 2019 Ziggy (Bk/Re/Bk) female 2014 cohort has been missing since September 2019 Wycliffe (Ye/Wh/Bl) male 2012 cohort has been missing since May 2020 Regina (Re/Ye/Re) female (2010 cohort) has been missing since May 2020

\*The two figures 'Known Alive' and 'Maximum Possible' are based on the resightings method. 'Known Alive' comprises birds that have been resighted at least in the last 4 months of the year. 'Maximum Possible' includes those not resighted in the last few months but that have been resighted at some point during the year. Once unknown status birds have not been seen for a whole 12 month period they are no longer included 'Maximum Possible' category and are counted as being unknown missing >1yr.

#### 1.2 Flock size over time.

Although the number of released birds has been steadily falling since 2015, population modelling suggests that the overall population will start to increase around 2020 as the surviving birds fecundity improves with age and 2<sup>nd</sup> generation birds reach breeding age too and start to feed into the population model. The 'flock size' reported below includes all released birds – those frequenting WWT Slimbridge, Somerset Levels and also a single bird (Beatrice) that appears to have settled in the Cambridgeshire Fens with a fenland male.

Table 1. Release project flock-size post final release year (2014).

	2014	2015	2016	2017	2018	2019	2020
No. Known Alive	76	74	67	62	56	52	51
No. Possible Max	79	75	69	64	59	56	53
Recruited each year	0	4	3	4	7	9	4
Recruited thought alive	0	4	7	10	17	23	27
Flock size min.	76	78	74	72	73	75	78
Flock size max.	79	79	76	74	76	79	80
% of original release population	100%	95%	91%	86%	77%	69%	65%
in the whole flock (min)							
2 <sup>nd</sup> generation as % of flock	0%	5%	9%	14%	23%	31%	35%

**Graph 2.** Reintroduced Population flock size and composition (min figs)



#### 1.3 Survival by year group

More than half of the original release population survive with a minimum of 55% surviving to date across all five release cohorts. The oldest birds (in their tenth year) have now dipped below 50% for the first time, with 8 of the original 20 known alive. The youngest release cohort ie those birds in their 6<sup>th</sup> year have the highest cohort survival with 71% of the original release of 17 birds known to be alive. The annual survival rates for each cohort and for each year group are tabulated below.

There was an average annual survival rate this year of 95%\*

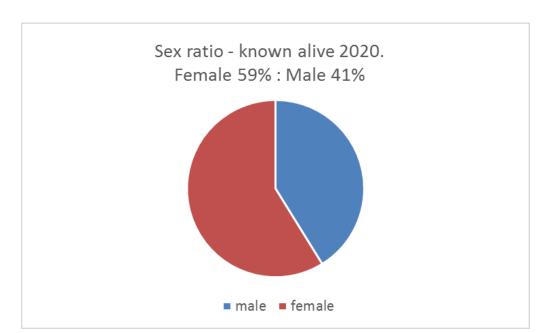
Table 2. Survival per release year cohort

Category	2010	2011	2012	2013	2014	TOTAL
Number released	20	17	19	20	17	93
Dead - known cause	4	3	2	4	0	13
	Jack	Gizmo	D2	Sven		
	Chris	Swampy	Willow	Stanley		
	Bart	Wally		Buttercup		
	Squidgy			Cotton		
Dead - unknown cause	1	0	1	1	2	5
	Howard		Jess	Whgrye	Yerebk	
					Humbug	
Dead - combined	5	3	3	5	2	18
	1		1			2
Unknown status - missing <	Regina		Wycliffe			
year						
	6	5	3	5	3	22
	Vince	Mildred	Midnight	Frieden	Dillon	
	Clarence	Trinny	Alexander	Mistymoor	Century	
	Mennis	Charlie	Gibble	Stowford	Ziggy	
	Gilbert	Pepper		Billy		
Unknown status - missing >	Minnie	Lofty		Skye		
year	Cosmo					
Missing – combined	7	5	4	5	3	24
Possibly Alive (Max) end						
2020	9	9	13	10	12	53
Known Alive	8	9	12	10	12	51
Possibly Alive (Max) end						
2019	10	10	14	11	14	56
2020 yr Annual Survival						
(max) %	90%	90%	93%	91%	86%	95%
% range of Survival						
known alive - max possible	40-45%	53%	63-68%	50%	71%	55%-57%

<sup>\*(</sup>calculated using the maximum possible alive figures).

#### 1.4 Sex ratio of surviving birds

At the end of 2020 the sex ratio of the Known Alive birds is 21 male to 30 female therefore only 21 possible pairs among released birds although the gender of most of the second generation birds is unknown and there are increasing numbers 2<sup>nd</sup> generation birds reaching breeding age.



Graph 3. Sex ratio of release population

# 2. Progress against targets (from GCP Project 2009-2014)

Table 3. Project targets and progress

TARGETS	
By 2015, to establish a resident and self-sustaining breeding population of cranes.	Population modelling by Geoff Hilton at WWT has shown that the population is on track to be self-sustaining long term. New better defined targets based on productivity are under production.
2. By 2025, to achieve a breeding population of at least 20 pairs, plus sufficient juveniles to maintain the population.	Population modelling by Geoff Hilton at WWT has shown that the population is on track to be self-sustaining long term. New better defined targets based on productivity are under production.
3. To achieve a survival rate to adulthood of 50% for the released cranes.	Target achieved.

#### 3. 'Resightings' results - monthly status of each released bird

The ringed cranes were monitored monthly through radio tracking and observations by volunteers in Somerset over a five day period at the end/start of each calendar month, coordinated by the project coordinator volunteer. Regihtings ,onitoring was not carried out in the months of April May June July and Aug. At WWT Slimbridge observations were carried out by site staff and volunteers over the same period and sent on to the coordinator in Somerset to compile.

#### Monthly column categories

AL = Known to be alive, within the study area (Somerset Levels and Moors)

AE = Known to be alive, outside the study area

DE = Known to be dead

ND = Not Detected

#### Key to Summary column 'Status'

KA = Known alive within or without study area – a positive ID within the last 4 months of the calendar year. (This includes positive ID outside of the resightings period, marked with \*)

?? = Not detected for at least the last 4 months (Sep-Oct-Nov-Dec) but less than a year. Recorded as missing < year in the table above.

DE = Known to be dead

M1 = Missing for more than 12 months but less than 2yrs

M2 = Missing for more than 2yrs

AA = Assumed Alive (for unringed 2<sup>nd</sup> generation birds that can not be categorically identified only)

#### Key to shading

Grey shading = birds missing for 1yr +, or known to be dead previous to this year

Orange shading = birds missing for <1yr

Salmon shading = birds known to have died this year

#### Refer to table overleaf for details

# Covis-19 restrictions prevented continual monitoring of the cranes during this year therefore results are not as comprehensive as as in previous years

No	Name	Combo	m/f	Jan	Feb	Mar	Apr	May	nnſ	lut	Aug	Sep	Oct	Nov	Dec	STATUS
1	Clarence	BlWhRe	М													M2
2	Gemma	ReWhRe	F	AL	ND							AL	ND	ND	ND	KA
3	Minnie	ReGrRe	М													M2

No	Name	Combo	m/f	Jan	Feb	Mar	Apr	Мау	Jun	Jul	Aug	Sep	Oct	Nov	Dec	STATUS
5	Gilbert	YeWhRe	М													M2
6	Michaela	GrBlRe	F	AL	AL							AL	AL	AL	ND	KA
7	Bart	ReBIRe	М													DE
9	Monty	BkGrRe	М	ND	AE							ND	ND	AE	AE	KA
10	Mennis	BlGrRe	М													M2
11	Chris	BkBlRe	F													DE
13	Twinkle	BkYeRe	F	AL	AL							AL	AL	AL	ND	KA
15	Wendy	WhBlRe	F	ND	AE							ND	AE	AE	AE	KA
17	Vince	WhGrRe	F													M2
18	Squidgy	GrYeRe	F	AE	DE											DE
19	Cosmo	GrBkRe	М													M2
21	Ruby	WhBkRe	F	AE	AE							AE	AE	ND	ND	KA
22	Tamsin	ReBkRe	F	AL	ND							ND	AL	ND	AL	KA
23	Regina	ReYeRe	F	AL	AL							ND	ND	ND	ND	?? *
25	Sedge	WhYeRe	F	AE	AE							ND	AE	AE	ND	KA
26	Lofty	ReBlWh	М													M1
27	Wally	ReYeWh	М													DE
28	Christma s	BkBlWh	F	ND	ND							AL	AL	ND	ND	KA
29	Timmy	ReBkWh	М	AL	AL							AL	AL	ND	ND	KA
30	Legend	WhReWh	М	ND	ND							ND	ND	AL	ND	KA
31	Albert	WhBlWh	М	ND	AE							ND	AE	AE	AE	KA
32	Charlie	WhYeWh	М													M2
33	Pepper	WhGrWh	М													M2
35	Beatrice	BlReWh	F	ND	ND							AE	ND	ND	ND	KA
37	Swampy	BlYeWh	F													DE
38	Trinny	YeReWh	F													M2
39	Elle	YeBlWh	F	ND	ND							AL	ND	AL	ND	KA
40	Mildred	BkGrWh	F													M2
41	Gerald	YeBkWh	М	AL	AL							AL	AL	AL	ND	KA
44	Flash	GeBkWh	F	AL	AL							AL	AL	AL	ND	КА
45	Pippa	GrReWh	F	ND	ND							AL	AL	AL	ND	KA
47	Phelps	ReYeBl	М	AE	ND							ND	ND	AL	ND	KA
48	Easter	ReGrBl	F	ND	ND							ND	AL	AL	ND	КА
49	Gibble	ReBkBl	F	ND	ND							ND	ND	ND	ND	M1
50	Elizabeth	WhReBl	F	AE	ND							ND	ND	AL	ND	KA
52	Chocolo	BkGeBl	М	AE	ND							AE	AE	AE	AE	KA

No	Name	Combo	m/f	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	STATUS
53	Alexande r	WhBkBl	М													M2
54	Midnight	BIReBI	М													M2
56	Evie	BlYeBl	F	ND	AE							ND	ND	AE	AE	KA
58	Haribo	BIBkBI	М	AE	AE							ND	AL	AE	ND	KA
60	Wycliffe	YeWhBl	М	ND	ND							ND	ND	ND	ND	??*
61	Willow	YeGrBl	М													DE
62	Wiz	BkYeBl	М	ND	ND							AL	AL	AL	AL	KA
63	Shadow	GrReBl	М	ND	ND							AL	AL	AL	ND	KA
64	Maple	GrWhBl	F	ND	ND							AL	AL	AL	ND	KA
65	D2	GrYeBl	М													DE
66	Margaret	GrBkBl	F	AL	AL							ND	AL	AL	ND	KA
67	Jasper	BkReBl	М	AL	AL							AL	ND	AL	ND	KA
68	Jess	YeBkBl	F													DE
69	Pickles	BkWhBl	М	AL	AL							AL	AL	AL	ND	KA
70	Cherry	ReWhYe	F	AL	AL							AL	AL	AL	ND	KA
71	Cotton	ReBIYe	F													DE
72	Waterwi ng	ReGrYe	F	ND	ND							AL	AL	AL	AL	КА
74	Acorn	WhReYe	F	ND	AL							ND	ND	AL	ND	KA
76	Wh-gr-ye	WhGrYe	М													DE
77	Billy	WhBkYe	М													M2
79	Excalibir d	BlWhYe	F	AL	ND							AL	ND	AL	ND	КА
80	Viridor	BlReYe	F	AL	ND							AL	ND	AL	ND	KA
81	Вор-Вор	BIBkYe	F	AL	ND							AL	AL	AL	ND	KA
82	Skye	YeReYe	F													M1
83	Stowford	YeWhYe	М													M2
84	Sven	YeBlYe	М													DE
85	Stanley	YeGrYe	М													DE
86	Bombus	YeBkYe	М	ND	ND							AL	AL	AL	AL	KA
87	Manfred	GrReYe	М	AL	ND							ND	AL	AL	ND	KA
88	Buttercu p	GrWhYe	F													DE
89	Cookie	GrBkYe	F	AL	ND							AE	AE	AE	ND	KA
90	Frieden	BkReYe	F													M2
91	Oakie	BkWhYe	М	AE	AE							AE	AE	AE	AE	KA
93	Mistymo or	BkGrYe	М													M2
94	Chip	ReWhBk	F	AL	AL							AL	AL	ND	ND	KA

No	Name	Combo	m/f	Jan	Feb	Mar	Apr	Мау	nnf	ln (	Aug	Sep	Oct	Nov	Dec	STATUS
95	Pecky	ReBlBk	М	AL	ND							ND	ND	AL	ND	KA
96	Soar	ReYeBk	М	ND	AL							AL	AL	AL	ND	KA
97	Ted	BkYeBk	М	AL	ND							AL	AL	AL	ND	KA
98	Patience	WhReBk	F	AL	AL							AL	AL	AL	ND	KA
100	Century	WhYeBk	F													M2
102	Dillon	BIReBk	М													M2
103	Rosa	BlWhBk	F	AL	AL							AL	AL	AL	ND	KA
104	Sherbert	BlYeBk	F	AE	AE							AE	AE	AE	AE	KA
105	Kia	WhBlBk	F	AE	ND							AE	AE	AE	AE	KA
																DE
106	Ye-re-bk	YeReBk	M	AL	ND							ND	AL	AL	ND	KA
107	Diamond	YeWhBk	F	ND	ND							AL	ND	ND	ND	KA
108	Gary	YeBlBk	M													
109	Cleg	BkGrBk	М	AL	AL							AL	AL	AL	ND	KA
110	Pepé	GrReBk	М	AL	ND							AL	AL	ND	ND	KA
113	Ziggy	BkReBk	F													M1
114	Humbug	BkWhBk	F													DE
201	A&S Chick	Unringed 2015	U	ND	ND							ND	ND	ND	ND	AA
202	A&S Chick	Unringed 2015	U	ND	ND							ND	ND	ND	ND	АА
203	M&W Chick	Unringed 2015	U	ND	ND							ND	ND	ND	ND	АА
204	M&G Chick	Unringed 2015	U	ND	ND							ND	ND	ND	ND	AA
205	M&G chick	Unringed 2016	U	ND	ND							ND	ND	ND	ND	АА
206	L&G Chick	Unringed 2016	U	ND	ND							ND	ND	ND	ND	AA
207	A&S Chick	ReWhGr 2016	F	AL	AL							AL	AL	AL	ND	KA
208	L&E Chick	Unringed 2017	U	ND	ND							ND	ND	ND	ND	AA
209	T&M Chick	ReBkGr 2017	М													DE
210	T&M Chick	Unringed 2017	U	ND	ND							ND	ND	ND	ND	AA
211	M&D Chick	ReYeGr 2017	F	AL	AL							AL	AL	AL	ND	KA
212	G&F chick	Unringed 2018	U	AL	AL							ND	ND	ND	ND	AA
213	J&V chick	WhReGr 2018	F	ND	ND							AL	AL	AL	ND	КА
214	L&Echick	Unringed 2018	U	ND	ND							ND	ND	ND	ND	AA
215	B&R chick	Unringed 2018	U	ND	ND							ND	ND	ND	ND	АА

No	Name	Combo		m/f	Jan	Feb	Mar	Apr	Мау	Jun	lut	Aug	Sep	Oct	Nov	Dec	STATUS
216	B&R chick	Unringed 2018	U		AE	DE											DE
217	O&S chick	Unringed 2018	U		AE	AE							ND	ND	ND	ND	AA
218	W&P chick	Unringed 2018	U		ND	AL							ND	ND	ND	ND	AA
219	T&M chick	WhYeGr 2019	М		AL	Α							AL	AL	AL	AL	KA
220	H&T chick	Unringed 2019	U		ND	ND							ND	ND	AL	ND	AA
221	L&E chick	Unringed 2019	U		ND	ND							ND	ND	ND	ND	AA
222	P&P chick	Unringed 2019	U		ND	ND							ND	ND	ND	ND	AA
223	P&P chick	Unringed 2019	U		ND	ND							ND	ND	ND	ND	AA
224	J&V chick	GrBkGr 2019	М														DE
225	G&F chick	GrReGr 2019	F		AL	AL							ND	AL	AL	ND	КА
226	P&R chick	GrWhGr 2019	F														DE
227	M&D chick	Unringed 2019	U		ND	ND							ND	ND	ND	ND	AA
228	P&P chick	Unringed 2020	U		-	-							AL	AL	AL	ND	КА
229	P&P chick	Unringed 2020	U		-	-							AL	AL	AL	ND	KA
230	M&C chick	Unringed 2020	U		-	-							AL	AL	AL	ND	KA
231	B+ wild chick	Unringed 2020	u		-	-							AE	ND	ND	ND	KA

<sup>\*</sup> Both Regina and Wycliffe, marked as unseen for more than 4 months, were paired and made breeding attempts this year. The attempts failed and neither of them has been seen since the Summer

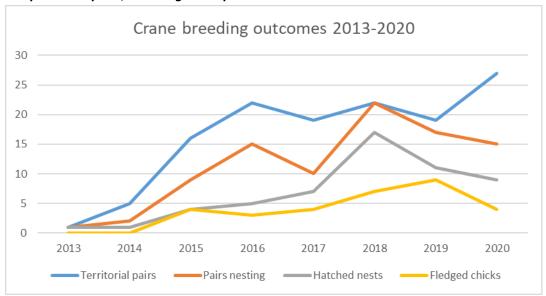
#### 4. 2020 breeding season details

#### 4.1 Breeding season summary

27 pairs of breeding age birds were observed in 2020 – two more than last year. Of these, all 27 pairs were thought to be holding territories. 15 pairs made confirmed or probable breeding attempts. Because monitoring activites were minimal on account of the Covid 19 restrictions, there were a higher proportion of pairs in the 'possibly bred' category than in previous years so it is likely that this confirmed/probable figure would have been higher in a 'typical' year. Nine of the 15 pairs successfully hatched chicks with four of these going on to fledge.

The 15 confirmed and probable nesting attempts this year were made on the Somerset Levels and Moors (7 prs); WWT Slimbridge Reserve Gloucestershire (5 prs); Oxfordshire (2 pr); Cambridgeshire (1 female).

3 fledged chicks came from the Somerset Levels and Moors and 1 fledged chick from Cambridgeshire.



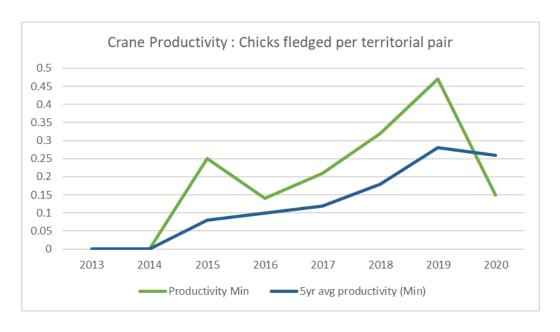
Graph 4. No. pairs, breeding attempts and outcomes 2013-2020

A productivity figure of 0.15% chicks per territorial pair (Productivty Rate 2 in table below) was recorded. This figure represents a significant decrease after 3 years of steadily increasing productivity and well below that necessary to sustain the population long term. The longer term 5yr average trend now stands at 0.26. The poor productivity is thought to be most likely linked to the drying of nest sites increasing the vulnerability to predation. There were almost drought conditions through the peak nesting season in 2020.

Table 5. Summary of breeding success and productivity 2013-2020

	2013	2014	2015	2016	2017	2018	2019	2020
No. of pairs at breeding age (3yrs+)	1	5	16	23	24	24	26	27
Territorial pairs	1	5	16	22	19	22	19	27
No. pairs making confirmed nesting	1	2	7	15	10	21	15	13
attempts								
No. pairs making probable nesting	0	0	2	0	0	1	2	2
attempts								
% of breeding age pairs that made nesting	100%	40%	44%	65%	42%	92%	65%	56%
attempts (confirmed plus probable)								
% of territorial pairs that made nesting	100%	40%	44%	68%	53%	100%	89%	56%
attempts (confirmed plus probable)								
Confirmed/probable nesting attempts -	2	4	11	25	14	33	22	15
including re-lays								
No. known pairs reaching hatch stage	1	1	4	5	7	17	11	9
% of confirmed and probable nesting	100%	50%	44%	33%	70%	77%	50%	60%
attempt reaching hatch stage								
Hatched chicks	1	2	6 -7	7	11	20	17-20	13-14
Fledged chicks	0	0	4	3	4	7	9	4
PRODUCTIVITY RATE 1.	0	0	0.44	0.20	0.40	0.31	0.53	0.27
No. of fledged chicks per								
confirmed/probable pair								
PRODUCTIVITY RATE 2.	0	0	0.25	0.14	0.21	0.31	0.47	0.15
No. of fledged chicks per total territorial								
pairs								
PRODUCTIVITY RATE 3.	0	0	0.25	0.13	0.17	0.29	0.35	0.15
No. of fledged chicks per total pairs at								
breeding age								

Graph 5. Productivity 2013-2020



# 4.2 List of successful pairs and age at breeding

#### 

Alexander (2012 - 3yr male) & Swampy (2011 - 4yr female)	2 fledged
Midnight (2012 - 3yr male) & Gemma (2010 - 5yr female)	1 fledged
Minnie (2010 - 5yr male) & Wendy (2010 - 5yr female)	1 fledged

#### 

Alexander (2012 - 4yr male) & Swampy (2011- 5yr female)	1 fledged (WURZELINA) ringed.
Midnight (2012 - 4yr male) & Gemma (2010 - 6yr female)	1 fledged
Lofty (2011 - 5yr male) & Gibble (2012 - 4yr female)	1 fledged

#### 

Manfred (2013 -4yr male) & Diamond (2014 - 3yr female)	1 fledged (MANDI) ringed.
Timmy (2011 - 6yr male) & Michaela (2010 - 7yr female)	2 fledged (1, TIMI) ringed.
Legend (2011 -6yr male) & Elle (2011 - 6yr female)	1 fledged

#### 

Legend (2011 -7yr male) & Elle (2011 - 7yr female)	1 fledged
Gerald (2011 - 7yr male) & Flash (2011- 7yr female) (siblings)	1 fledged
Jasper (2012 – 6yr male) & Viridor (2013 – 5yr female)	1 fledged (JAVI) ringed.
Wiz (2012 – 6yr male) & Pippa (2011 – 7yr female)	1 fledged
Bart (2010 – 8yr male) & Ruby (2010 – 8yr female)	2 fledged
Oakie (2013 – 5yr male) & Sherbert (2014 – 4yr female)	1 fledged

#### 

Legend (2011 - 8yr male) & Elle (2011 - 8yr female)	1 fledged
Gerald (2011 - 8yr male) & Flash (2011- 8yr female) (siblings)	1 fledged (FERGIE) ringed.
Haribo (2012 - 7 yr male) & Twinkle (2010 - 9yr female)	1 fledged
Pickles (2012 - 7yr male) & Patience (2014 - 5yr female)	2 fledged
Manfred (2013 - 6yr male) & Diamond (2014 - 5yr female)	1 fledged
Pecky (2014 - 5yr male) & Regina (2010 - 9yr female)	1 fledged (PEGGY) ringed.
Timmy (2011 – 8yr male) & Michaela (2010 - 9yr female)	1 fledged (TUTU) ringed.
Jasper (2012 – 7yr male) & Viridor (2013 – 6yr female)	1 fledged (VEEJAY) ringed.

#### 

Pickles (2012 - 8yr ma	le) & Patience (2014 - 6yr female)	2 fledged
Cleg (2014 – 6yr male	& Michaela (2010 - 10yr female)	1 fledged
Wild male	& Beatrice (2011 - 9yr female)	1 fledged

#### 4.3 How old are the most successful breeders?

Table 6. Age and number of birds successfully breeding.

Age	Male	Female	Total
3у	2	1	3
4y	3	3	6
5y	4	1	5
6у	6	4	10
7y	3	4	7
8y	4	3	7
9у	0	4	4
10 y	0	1	1

#### 4.4 Which birds are the most successful breeders?

Table 7. The 'league table' of successful birds – nos. fledged per breeding bird to date.

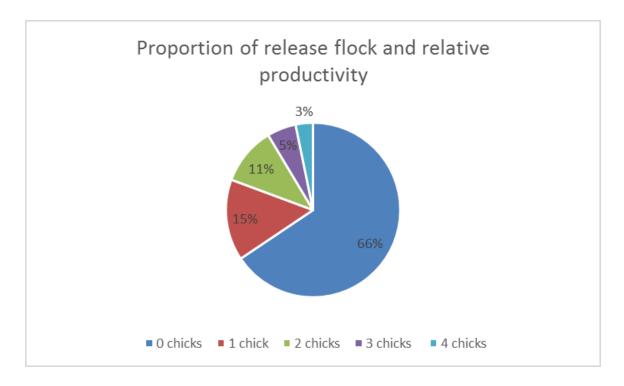
Males	Release yr	No. fledged	Females	Release yr	No.fledged
Minnie*	2010	1	Gemma	2010	2
Lofty*	2011	1	Wendy	2010	1
Timmy	2011	3	Michaela	2010	4
Legend	2011	3	Swampy*	2011	3
Alexander*	2012	3	Elle	2011	3
Midnight*	2012	2	Gibble*	2012	1
Manfred	2013	2	Diamond	2014	2
Gerald	2011	2	Flash	2011	2
Jasper	2012	2	Viridor	2013	2
Wiz	2012	1	Pippa	2011	1
Bart*	2010	2	Ruby	2010	2
Oakie	2013	1	Sherbert	2014	1
Haribo	2012	1	Twinkle	2010	1
Pickles	2012	4	Patience	2014	4
Pecky	2014	1	Regina	2010	1
Cleg	2014	1	Beatrice	2011	1

<sup>\*</sup>birds that are now dead, or missing < > 1yr.

Pickles, Patience and Michaela are the most productive birds to date with four fledged chicks each. All three of these birds are alive and will hopefully continue to breed successfully in future years. Their successful chicks have all fledged from the RSPB West Sedgemoor Reserve, Somerset. Five

birds have produced three fledged chicks – Timmy, Legend, Alexander, Swampy and Elle, with ten birds producing two chicks and a further 14 birds one. In total 32 of the 93 released birds have had successful breeding seasons.

Graph 6. Proportion of release flock and relative productivity to 2020



# 4.5 Breeding details – CONFIDENTIAL\*

\*removed in Public Version.

Table of confirmed, probable and possible breeding attempts – location, outcomes, and cause of losses

#### 5. Birds lost and missing this year

#### Known deaths

None

#### Missing

Two birds that had been in the possibly alive category in 2019 moved into the unknown category this year — Gibble and Ziggy. Details below.

Red/Black/Blue Gibble

Gibble was last identified during in April 2019 in South Wales with an unringed bird making a breeding attempt which failed. She has not been observed since.

Black/Red/Black Ziggy

Ziggy has not been observed since September 2019

Two birds have not been seen for the last four months, so fall into the 'possibly alive' category – but not the 'known alive' for 2020 – Wycliffe and Regina. Details below.

Yellow/White/Blue Wycliffe

Wycliffe was last observed in mid April with Maple-Glory at RSPB Otmoor (Oxon) after hatching one chick which was predated after 5 weeks. Although Maple has been observed with the flock on West Sedgemoor, Somerset with the flock there has been no sign of Wycliffe.

Red/Yellow/Red Regina

Regina and Pecky hatched one chick on West Sedgemoor but the chick was lost after 14 days. Regina has not been observed since then though Pecky has been seen.

The following two birds, Chip and Beatrice were recorded as missing for more than 4 months but less than 1 yr in 2019 report, so included in the number 'possibly alive' last year, but not the 'know alive'. Both were observed in the 2020 year. Details below.

Red/White/Black Chip Observed with the flock on West Sedgemoor

Blue/Red/White Beatrice Bred in Cambridgeshire

#### 6. Chicks ringed in 2020

Owing to the restrictions imposed as are sult of the Covid -19 pandemic no chicks were ringed this year.

## 7. 2nd generation birds

31 birds have fledged to date – shown in the table below. 27 thought to be alive

Table of 2<sup>nd</sup> generation birds

Identit	hr						Male	Female	Colour ring combinat	
numbe	_	Status	Nickname	Hatch date	Fledge	date	Parent	Parent	ion	Comment
	201	Unknown		10/05/2015	2	22/07/2015	Alexander	Swampy	n/a	
	202	Unknown		10/05/2015	2	22/07/2015	Alexander	Swampy	n/a	
	203	Alive	(Slimchick)	13/05/2015	(	08/08/2015	Minnie	Wendy	n/a	
	204	Unknown		May-15		Aug-15	Midnight	Gemma	n/a	
	205	Unknown	(Moonraker)	May-16		Aug-16	Midnight	Gemma	n/a	
	206	Unknown	(Garan)	21/05/2016	(	05/08/2016	Lofty	Gibble	n/a	
	207	Alive	Wurzelina	28/06/2016	(	02/09/2016	Alexander	Swampy	ReWhGr	
	208	Alive		09/05/2017	,	18/07/2017	Legend	Elle	n/a	
	209	Missing	Eugene	01/06/2017	•	10/08/2017	Timmy	Michaela	ReBkGr	Lost Sep 2017
	210	Alive	, and	01/06/2017	,	10/08/2017	Timmy	Michaela	n/a	·
	211	Alive	Mandi	10/06/2017	•	19/08/2017	Manfred	Diamond	ReYeGr	
	212	Alive		16/05/2018	2	20/07/2018	Gerald	Flash	n/a	
	213	Alive		23/05/2018	(	01/08/2018	Legend	Elle	n/a	
	214	Alive	Javi	25/05/2018	(	01/08/2018	Jasper	Viridor	WhReGr	
	215	Alive		25/05/2018	(	03/08/2018	Wiz	Pippa	n/a	
	216	Alive		22/05/2018		12/08/2018	Bart	Ruby	n/a	
	217	Alive		22/05/2018	•	12/08/2018	Bart	Ruby	n/a	Died Feb 2019
	218	Alive		01/07/2018	2	29/08/2018	Oakie	Sherbert	n/a	
	219	Allive	Timitutu	10/04/2019	2	24/07/2019	Timmy	Michaela	WhYeGr	
n/a		Dead		10/04/2019	n/a		Timmy	Michaela	WhBkGr	Dead June 2019
	220	Alive	Westy	19/04/2019	•	10/07 2019	Haribo	Twinkle	n/a	
	221	Alive		30/04/2019	(	09/07/2019	Legend	Elle	n/a	
	222	Alive		16/05/2019	(	06/08/2019	Pickles	Patience	n/a	
	223	Alive		16/05/2019	(	06/08/2019	Pickles	Patience	n/a	
n/a		Dead		26/05/2019	na		Jasper	Viridor	GrYeGr	Dead July 2019
	224	Dead	Veejay	26/05/2019	mid Aug	ust 2019	Jasper	Viridor	GrBkGr	Dead August 2019
	225	Alive	Fergie	Late May	•	10/08/2019	Gerald	Flash	GrReGr	
	226	Dead	Peggy	30/05/2019	mid Aug	ust 2019	Pecky	Regina	GrWhGr	Dead Aug 22nd 2019
	227	Alive		Early June	Late Aug	2019	Manfred	Diamond	n/a	
	228	Alive		Unknown	mid July	2020	Pickles	Patience	n/a	
	229	Alive		Unknown	mid July	2020	Pickles	Patience	n/a	
	230	Alive		Unknown	mid July	2020	Cleg	Michaela	n/a	
	231	Alive		Unknown	early Au	gust 2020	Wild crane	Beatrice	n/a	

# 8. Individual bird summary table for all 93 released birds

NB Covid - 19 restrictions have restricted the ability to gather information, so there was less observer effort to previous years. However, all bar 2 birds were re-sighted during the autumn/winter sighting period and the data gathered are believed to be as accurate as in other years.

(Greyed out birds = birds known dead or missing for >1yr)

Num ber	Name	M F	Tag	Tag outcome	Ring combo	Annual summary 2019	Annual breeding outcome C = confirmed P = paired up N = non-breeding	Breeding outcome to date	Date of death	Other removal from programme
2010 re	elease year									
1	Clarence	М	GPS, RT	GPS data logger malfunction – ceased to work Sept 2010 Radio tag ceased summer 2011. Thought to be still wearing back pack when missing August 2013.	bl-wh-re	Went missing August 2013.  No further sightings.	-	-	?	Missing Aug 2013
2	Gemma	F	RT	Radio tag ceased to function summer 2011.	re-wh-re	Gemma was not observed until September 2020 when she was sighted with the flock on West Sedgemoor. Gary was also there.	N: Non breeding	2015:1 fledged chick 2016:1 fledged chick 2017:No evidence of nesting 2018:No evidence of nesting 2019: No evidence of breeding 2020: No evidence of breeding		
3	Minnie	М	GPS, RT	GPS data logger malfunction – ceased to work Sept 2010 Radio tag working poorly March 2012. Still wearing back pack in March 2014. Thought to be still wearing Back Pack when missing in November 2015	re-gr-re	Missing from Nov 2015. No further sightings.	-	2015:1 fledged chick 1 chick died pre-fledge	?	Missing Nov 2015
5	Gilbert	М	GPS, RT	GSP data logger malfunction – ceased to work Sept 2010 Radio tag ceased summer 2011. Back pack absent - Sep 2013.	ye-wh-re	Went missing from early January 2015 following severe leg injury (probable break). No further sightings.	-	2014:2 eggs - failed at egg stage	?	Missing Jan 2015
6	Michaela	F	RT	PTT removed Feb 2011 after problem with gait	gr-bl-re	Michaela has switched partners and paired with Cleg (2014). She remained in her territory and incubation started around 17 <sup>th</sup> May. I/2 chicks hatched – one survived to fledge in late July.	C: One successful breeding attempt with 1/2 chicks hatched. One chick survived to fledge.	2014: 1 clutch - failed at egg stage 2015: 3 clutches: 2 clutches failed egg stage; 1 chick from last clutch failed to fledge. 2016: 2 clutches both failed at egg stage.		

								2017: 1st attempt abandoned. 2nd successful fledging 2 chicks. 2018: 2 clutches. 1st failed. 2nd two chicks - one lost the other fledged. 2019: 1 clutch raising two chicks both ringed and radio tagged but only one fledged. 2020: I clutch raising 1/2 chicks of which one survived to fledge.		
7	Bart	М	PTT	PTT ceased Dec 2012 and then intermittent in March 2013. Stopped fully by June 2013.	re-bl-re	2018: Paired with Ruby and seen at Slimbridge and photographed displaying to each other in late February. Nested on Southlake Duck Marsh (reported 25/04) Hatch took place on 26th May - 2 chicks. Both juveniles fledged by late August Bart found dead on 29 <sup>th</sup> October – cause of death avian TB.	C: 1 breeding attempts, 2 eggs successfully hatched and 2 chicks fledged.	2014:1 clutch, failed at egg stage. 2015: 1 clutch, failed at egg stage. 2016: 2 clutches – both failed at egg stage. 2017: 2 clutches – both failed one at egg and the other at chick stage. 2018: 1 clutch producing two chicks. Both fledged.	29/10 2018	
8	Jack	F	RT	Radio tag functioning when died	ye-bk-re	Died November 2010 (flew into wires)	-		18/11 2010	
9	Monty	М	RT	Radio tag ceased to function summer 2011.	bk-gr-re	Monty remained at WWT Slimbridge but was not observed throughout the breeding season and it is not known whether he was paired or made a breeding attempt. He was observed with the flock at Slimbridge in November.	N: No known breeding attempt.	2013: 1 chick died at 1-2 days. 2014: 2 chicks, both failed to fledge. 2015: 0 2016: 2 clutches: 1 (single egg) was abandoned, 2 egg clutch hatched 1 chick, died after 14 days. (other egg was infertile) 2017: n/a 2018: 1 clutch of 2 eggs. 1 chick hatched but failed to thrive. 2019: No breeding attempt. 2020: No known breeding attempt		
10	Mennis	М	GPS, RT	Radio tag ceased summer 2011. Still wearing backpack March 2014.	bl-gr-re	Last seen in November 2014. No further sightings.	-	2014: Paired with Swampy- no known attempt MISSING NOV 2014		Missing (presumed dead) November 2014

11	Chris	F	GPS, RT, ECO	Radio tag working poorly March 2012. Capture July 2012 at Slimbridge. Re-fitted with GPS data logger and radio tag. GPS data logger failed Jan 2013. Radio tag failed by summer 2014. Radio tag removed on recapture in August 2014, along with back pack. ECOTONE GPS tag fitted at recapture in August 2015	bk-bl-re	Euthanased in Feb 2016 due to ill health.	-	2013: 1 chick died at 1-2 days. 2014: 2 chicks, both failed to fledge. 2015: no attempt 2016: EUTHANASED	16/02 2016	
13	Twinkle	F	PTT	PTT ceased to function 19 <sup>th</sup> October 2011 Causing gait problem/irritation to leg winter 2012/13 and Spring/Summer 2013. Intermittent gait problems in 2015. Gait problem still apparent in photos Sep 2018.	bk-ye-re	Twinkle was observed on Westmoor, Somerset in March. On 22nd March evidence of nesting was seen (birds feeding alone) but there was no firm evidence of a breeding attempt and a nest not located. She has been observed with the flock on West Sedgemoor during the Autumn.	C: No known breeding attempt	2016: 1 clutch, failed at egg stage. 2017: No attempt made. 2018: two attempts both failed at egg stage. 2019: one attempt, one chick fledged 2020: No known breeding attempt		
15	Wendy	F	RT	Radio tag ceased to function summer 2011.	wh-bl-re	Wendy remained at WWT Slimbridge and with Albert got as far as building a nest, but excessive drying out of their nest location due to drought is thought to have caused them to abandon the nest. No further attempt was observed. This pair has been observed with the flock at Slimbridge during the Autumn	C: One nesting attempt but failed owing to drought.	2015: 1 fledged chick, 1 chick died pre-fledge. 2016: 1 clutch, failed at egg stage. 2017: 1 clutch, failed at egg stage. 2018 1 clutch – hatched 1 chick but did not survive. 2019: 2 clutches. The 2nd produced 2 chicks -later died 2020: 1 attempt failed owing to drought		
16	Howard	F	RT	Radio tag signal enabled rings to be found Jan 2011	ye-bl-re	Died November 2010. Remains found - cause unknown.	-	-	05/11 2010	
17	Vince	F	RT	Radio tag ceased to function summer 2011	wh-gr-re	Went missing May 2013 – no further sightings	-	-	?	Missing May 2013

18	Squidgy	F	RT	Radio tag ceased to function summer 2011	gr-ye-re	Squidgy's remains were found on 5 <sup>th</sup> March 2019. Cause of death unknown.	N: No breeding attempt this year, unpaired.	None to date	5/3 2019	
19	Cosmo	М	RT	Radio tag ceased to function summer 2011	gr-bk-re	2018: Cosmo has not been observed this year. Went missing late 2017.	-	2015: Probable breeding attempt, failed at egg stage. 2016: 1 clutch, failed at egg stage. 2017: No breeding attempt. 2018: n/a		Missing since late 2017
21	Ruby	F	PTT	PTT ceased Dec 2012 but intermittent in early Spring 2013. PTT removed when caught at moult, July 2013. Original radio tag ceased to function summer 2011.  New radio tag fitted in July 2013, still working March 2014. Not checked during 2015 or 2016 so radio tag status unknown.	wh-bk-re	Ruby remained at WWT Slimbridge, paired with an unringed bird, and built a nest but there was no evidence of chicks. Ruby has been observed with the flock at Slimbridge during the Autumn.	C: Nest built but abandoned due to drought	2014: 1 clutch, failed at egg stage. 2015: 1 clutch, failed at egg stage. 2016: 2 clutches, both failed at egg stage. 2017: 2 clutches – both failed one at egg and the other at chick stage. 2018: 1 clutch - 2 fledged chicks. 2019: No known breeding attempt 2020: 1 attempt failed due to drought		
22	Tamsin	F	RT	Radio tag ceased to function summer 2011.	re-bk-re	Tamsin was observed with Timmy on West Sedgemoor on 17th March and again in mid July. No evidence of a breeding attempt. Tamsin has been observed with the flock during the Autumn. She seems to be surviving well despite her missing foot.	N: No known breeding attempt	2015: Unknown – but failed to fledge. 2016: Unknown but failed to fledge. 2017 Unknown but failed to fledge. 2018: 1 chick lost before fledge. 2019: No known breeding attempt 2020: No known breeding attempt		
23	Regina	F	RT	Radio tag ceased to function summer 2011.	re-ye-re	Regina was observed on territory on West Sedgemoor with Pecky on 16th March. Hatched 1 chick - lost at 14 days – cause unknown. Regina has not been observed with the flock on West Sedgemoor during the Autumn.	C: One breeding attempt, hatched one chick which was lost – cause unknown	2016: 1 clutch, failed at egg stage. 2017: No breeding attempt. 2018 1 clutch, 1 chick, lost during rearing. 2019: One attempt, one chick which died after fledge 2020: One attempt, one chick which died		

25	Sedge elease year	F	PTT	PTT stopped working in Dec 2012, and was intermittent through Spring 2013, stopping working fully by mid June 2013.	wh-ye-re	Sedge remained at WWT Slimbridge but there was no evidence of her either pairing or making a breeding attempt. Sedge has been observed with the flock at Slimbridge during the Autumn.	N: No known breeding attempt	2016: 1 chick from 2 <sup>nd</sup> clutch, failed to fledge. 2017: No breeding attempt. 2018: 1 breeding attempt – failed at chick stage. 2019: No known breeding attempt 2020: No known breeding attempt		
						Christmas was observed on Kingsmoor, Somerset with Shadow in early March and later feeding on her own (an	N: No known breeding attempt	2017: One chick hatched but not seen again after 11 <sup>th</sup> June. 2018: 1 clutch, failed at egg stage 2019:. 1 attempt but no evidence		
28	Christmas Shoes	F	RT	Radio tag ceased to function summer 2013.	bk-bl-wh	indication that Christmas may have been sitting). However, there was no evidence of a nest and by the end of March the pair were seen together so any attempt failed. She has been observed with the flock on West Sedgemoor in the Autumn.		of chicks 2020: No known breeding attempt		
26	Lofty	М	GPS, RT	GPS data logger failed Sept 2012. Radio tag ceased to work winter 2012/13. Appeared to be wearing back pack in photos from Summer 2016. No sign of back pack in photos from April 2018.	re-bl-wh	Not seen since October 2018 and didn't appear in South Wales with with Gibble when she returned to their territory. His whereabouts are unknown and he is assumed dead.	C: No breeding attempt	2015: Unknown but failed to fledge. 2016: 2 chicks hatched, 1 chick fledged. 2017: 2 chicks hatched from first attempt but not seen after 30 <sup>th</sup> June. 2018: 2 chicks hatched from first attempt but not seen after 25 <sup>th</sup> May 2019: No breeding attempt.	Possibly Oct 2018	
27	Wally	М	GPS, RT	GPS data logger failed Sept 2012. Radio tag ceased to work winter 2012/13. Back pack harness noted as slipped out of position – photo Oct 2017. Backpack straps caused entanglement and death Aug 2018.	re-ye-wh	2018: Paired with Easter and took up territory on West Sedgemoor in April. Mating witnessed and incubation started 24th April but failed on 25th April. Observed mating on 26th April. Incubation of 2nd nest started on 11th May. Nest failed 16th May. The pair continued to occupy their territory but no further nesting attempts were made. Wally was found dead on the Reserve on 9th August,	C: 1 clutch – failed at egg stage	2018: 1 clutch – failed at egg stage	09/08 2018	

						following entanglement.			
32	Charlie	М	GPS, RT	GPS data logger failed Sept 2012. Radio tag ceased to work winter 2012/13. Still wearing back in Sep 2013 when went missing – Oct 2013.	wh-ye-wh	Went missing – October 2013. No further sightings.	-	-	Missing Oct 2013
31	Albert	М	RT	GPS data logger failed Sept 2012. Radio tag ceased to function summer 2013. Back pack fallen off - Sept 2013.	wh-bl-wh	Albert remained at Slimbridge for the winter and made one nesting attempt with Wendy which failed early. Failure is thought to be due to increasingly low water levels which may have led to predation or abandonment of the nest. He has been observed at Slimbridge in the Autumn.	C: One breeding attempt abandoned due to low water.	2016: 1 clutch, failed at egg stage. 2017: 1 clutch – failed at egg stage. 2018:1 clutch. Failed at chick stage. 2019: Two breeding attempts - two chicks died pre-fledge. 2020: One attempt - failed	
33	Pepper	М	RT	Radio tag ceased to function summer 2013.	wh-gr-wh	Went missing – January 2014. No further sightings.	-		Missing Jan 2014
29	Timmy	М	RT	Radio tag ceased to function summer 2013.	re-bk-wh	Timmy was observed with Tamsin on West Sedgemoor in March and again in July but no evidence of nesting was observed. He has been observed with the flock on West Sedgemoor in the Autumn.	N: No known breeding attempt	2015: 2 clutches: 1 failed to hatch; 1 chick from 2 <sup>nd</sup> clutch failed to fledge. 2016: 2 clutches – both failed at egg stage. 2017: 2 attempts one failed at egg stage the other successful with two chicks hatched and fledged. 2018: 1 clutch – 2 chicks hatched but both died pre fledge. 2019: 1 clutch, 2 chicks hatched, only one fledged 2020: No known breeding attempt	
30	Legend	M	RT	Radio tag last working in March 2016 , now failed.	wh-re-wh	Legend was observed with Elle on territory on West Sedgemoor in March but not again until June when the pair were observed with no chicks. It is possible that they made a failed breeding attempt. Legend has been observed with the flock on West	N: No known breeding attempt	2015: 2 clutches, both failed at egg stage. 2016: 3 clutches all failed at egg stage. 2017: 1 clutch of two eggs successful. One chick lost and one fledged. 2018: 2 clutches. 1st failed. 2nd	

						Sedgemoor in Autumn.		clutch - 1 chick fledged.	
						Coagemoor in Autumn.		2019: 1 clutch – 1 chick fledged.	
								2020: No known breeding attempt	
39	Elle	F	GPS, RT	GPS data logger failed Sept 2012. Radio tag still working (just) in December 2016. (incredibly!) Back pack shifted and in odd position first noted in Feb/March 2015. Out of position through all of 2016, 2017 and in November 2018 Elle was reported without the back pack so assume successfully shed.	ye-bl-wh	Observed with Legend in usual territory on West Sedgemoor in March but not again until June when they were observed with no chicks. It is possible that they made a failed breeding attempt. Elle has been observed with the flock on West Sedgemoor in Autumn.	N: No known breeding attempt	2015: 2 clutches, both failed at egg stage. 2016: 3 clutches all failed at egg stage. 2017: 1 clutch of two eggs hatched successfully. 1 chick lost, 1 fledged. 2018: 2 clutches. 1st failed egg stage. 2nd hatched 2 - 1 chick fledged. 2019: 1 clutch – 1 chick fledged 2020: No known breeding attempt	
35	Beatrice	F	GPS, RT	GPS data logger failed Sept 2012. Radio tag ceased to function summer 2013. Backpack reported as malpositioned in Spring 2017. Malpositioned through winter of 2017/18. Backpack shed by May 2018.	bl-re-wh	2020 has been a good year for Beatrice - she fledged her first chick. She nested again on the Nene Washes, Cambridgeshire, probably with the same unringed partner from previous years. Two recently hatched chicks were seen on the 18th May, but one was lost because the pair were seen with one chick by 7th June. A single unattended fledged chick was seen on the 12th August which is thought to have been Beatrice's. She was not seen then or again until the 13th Sept when the family reappeared at March Farmers.	C: One breeding attempt - two chicks-one survived to fledge	2016: 3 clutches, all failed at egg stage. 2017: no breeding attempt. 2018: 1 clutch failed at egg stage. 2019: 1 clutch of 2 chicks which died. 2020: I clutch of 2 chicks- one reached fledge	
41	Gerald	М	GPS, RT	GPS data logger failed Sept 2012. Radio tag ceased to work winter 2012/13. Back pack noted as malpositioned towards end of 2017 and still in December 2018. #September 2019 back pack still positioned under its belly.	ye-bk-wh	Gerald and Flash were observed in territory in March and a crane nest (probably theirs) was found in June with broken eggshell remains. No evidence of a further attempt. Gerald has been observed with the flock on West Sedgemoor in the Autumn.	C: One breeding attempt  - failed at egg stage possibly predated	2015: Suspected nesting attempt – no chicks fledged. 2016: 2 clutches, both failed at egg stage. 2017: 1 attempt which failed and no evidence of eggs found. 2018: 1 attempt - 1 chick successfully fledged. 2019: 1 clutch – 1 chick fledged 2020: I attempt - failed	

44	Flash	F	RT	Radio tag ceased to function summer 2013.	gr-bk-wh	Flash and Gerald were observed in territory in March and a crane nest (probably theirs) was found in June with broken eggshells. No evidence of a further attempt. Flash has been observed with the flock on West Sedgemoor in the Autumn.	C: One breeding attempt - failed at egg stage possibly predatedt -	2015: Suspected nesting attempt – no chicks fledged. 2016: 2 clutches, both failed at egg stage. 2017: 1 attempt failed egg stage. 2018: I attempt – 1 chick successfully reared to fledge 2019: One successful breeding attempt fledging one chick. 2020: 1 attempt failed at egg stage		
43	Gizmo	М	RT	Taken by fox in Dec. Radio tag enabled body to be located.	gr-ye-wh	Taken by fox December 2011, following illness.	-	-	10/12 2011	
40	Mildred	F	RT	Out of study area - Radio tag unknown.	bk-gr-wh	Went missing September 2011 after sighting in Kent. No further sightings.	-	-	-	Missing Sept 2011
38	Trinny	F	GPS, RT	GPS data logger failed Sept 2012. Radio tag ceased to work winter 2012/13. Thought to have still been wearing back pack when went missing April 2013.	ye-re-wh	Went missing April 2013. No further sightings.	-	-	-	Missing April 2013
37	Swampy	F	RT	Radio tag fell off May 16 <sup>th</sup> 2012 and located on Aller Moor by signal.	bl-ye-wh	Swampy was found shot on 28 <sup>th</sup> September 2016.	-	2015: 2 chicks to fledging. 2016: 1 chick fledged and ringed.	28/09 2016	
45	Pippa	F	RT	Radio tag ceased to function summer 2013.	gr-re-wh	Pippa and Wiz were observed in their territory on Wetmoor, Somerset, in late March. Known to be incubating in late April but failed by early May. Pippa has been seen with Wiz together with the flock on West Sedgemoor in the Autumn.	C: One nesting attempt – failed, cause unknown	2015: Probable breeding attempt, failed to hatch eggs 2016: 1 clutch failed at egg stage. 2017: No breeding attempt made. 2018: 1 breeding attempt. 1 chick successfully reared to fledge. 2019: One nesting attempt – failed at chick stage. 2020: 1 attempt - failed		

2012 re	elease year		•					
47	Phelps	М	GPS, RT	Back-pack partly fell off and was removed by hand autumn 2012 Radio tag ceased to function Nov 2014.	re-ye-bl	Phelps remained at WWT Slimbridge in the Spring, and made a breeding attempt with Elizabeth, hatching one chick. The chick did not survive – cause unknown. Phelps and Elizabeth have been observed at WWT Slimbridge with the flock during the Autumn.	C: One breeding attempt – 1 chick lost – cause unknown	2015: no breeding attempt 2016: 2 clutches, both failed at egg stage 2017: n/a 2018: 3 clutches – all failed at egg stage. 2019: No breeding attempt 2020: I clutch, 1 chick, lost – cause unknown
48	Easter Beans	F	RT	Radio tag ceased to function Oct 2013.	re-gr-bl	Easter paired with an unringed bird on West Sedgemoor and was known to have hatched one chick which was later lost – cause unknown. Easter has been observed with the flock on West Sedgemoor during the Autumn.	C: One breeding attempt, one chick lost – cause unknown	2015: no breeding attempt 2016: no breeding attempt 2017: no breeding attempt 2018: 2 clutches failed at egg stage. 2019: No known breeding attempt 2020: 1 clutch – 1 chick, lost
49	Gibble	F	GPS, RT	GPS ceased to function 19 <sup>th</sup> December 2013. Radio tag stopped Nov 2014. Still wearing back pack when sighted in November 2015. Backpack – no further information during 2016/17/18 Status TBC	re-bk-bl	Gibble has not been observed since the Summer of 2019.	N: no known breeding attempt	2015: no breeding attempt 2016: 1 fledged chick 2017: 2 chicks hatched from first attempt but not seen after 30 <sup>th</sup> June 2018: 1 breeding attempt – 2 chicks hatched but lost before fledge. 2019; Made one nesting attempt, failed at egg stage 2020: No breeding attempt

50	Elizabeth Royal	F	PTT	Satellite tag ceased to function 27/07/2014.	wh-re-bl	Elizabeth remained at WWT Slimbridge through the Spring and made a breeding attempt with Phelps, hatching one chick. The chick did not survive – cause unknown. Elizabeth and Phelps have been observed with the flock at WWT Slimbridge during the Autumn	C: one breeding attempt – one chick, lost – cause unknown	2015: no breeding attempt 2016: 2 clutches, both failed at egg stage 2017: Made a nest but abandoned. 2018: 3 clutches – all failed at egg stage. 2019: No known breeding attempt 2020: 1 clutch – 1 chick - lost	
52	Chocolo	М	RT	Radio tag known failed by October 2015.	bk-gr-bl	Chocolo made one breeding attempt at WWT Slimbridge and hatched one chick which was lost – presumed predated at 3 weeks old. Chocolo has been observed with the flock at WWT Slimbridge during the Autumn.	C: One breeding attempt  – one chick, lost at 3 weeks.possibly predated	2015: Unknown – but failed tofledge 2016: Unknown but failed to fledge 2017: n/a 2018: 1 breeding attempt – failed at chick stage. 2019: No known breeding attempt 2020: 1 clutch – 1 chick - lost	
53	Alexander	М	PTT	PTT Satellite tag ceased to function 19/12/2013.	wh-bk-bl	2018: Alexander has not been observed this year.	-	2015: 2 chicks to fledging. 2016: 1 chick to fledging. 2017: I nest –abandoned at egg stage.	Missing since late 2017
54	Midnight	М	PTT	Satellite tag ceased to function 15/04/2014.	bl-re-bl	Went missing May 2016. No further sightings.	-	2015: 1 fledged chick 2016: 1 fledged chick	Missing since May 2016
56	Evie	F	RT	Radio tag failed autumn 2015 .	bl-ye-bl	Evie remained at WWT Slimbridge but was not observed during the breeding season. Evie was observed with the flock at WWT Slimbridge in November.	N: No known breeding attempt	2015: no breeding attempt 2016: no breeding attempt 2017: no breeding attempt. 2018: no breeding attempt. 2019: No known breeding attempt 2020: No known breeding attempt	

58	Haribo	М	GPS,RT	GPS ceased to function Dec 2013. Radio tag ceased to work Mar 2014. Back-pack straps seen hanging low in late October 2015. November 2015 re-sightings recorded him without backpack so successfully shed.	bl-bk-bl	Haribo was thought to have made a nesting attempt on Westmoor, Somerset, with Twinkle, as there was evidence observed of each of the pair seen feeding alone. Soon after they were seen together again so the attempt is thought to have failed. No evidence of further attempts. Haribo was seen as part of the pair amongst the flock on West Sedgemoor during the Autumn	C: One possible breeding attempt - failed	2015: no breeding attempt 2016: 1 clutch, failed at egg stage 2017: no breeding attempt 2018: 2 breeding attempts – failed at egg stage 2019: 1 breeding attempt, 2 chicks - fledged. 2020: 1 unconfirmed attempt - failed		
60	Wycliffe	М	GPS, RT	GPS ceased to function Oct 2013. Radio tag failed over summer 2015. Back pack harness noted as slipped out of position – photo Oct 2017. Reported as still malpositioned in Spring 2018.	ye-wh-bl	Wycliffe and Maple were observed incubating on the 10th March at RSPB Otmoor, Oxfordshire, and hatched one chick which was predated after 5 weeks. No further breeding attempt was recorded. Since the summer Wycliffe has not been observed.	C: 1 breeding attempt – predated after 5 weeks	2015: 2 eggs failed to hatch. 2016: 2 eggs hatched but chicks predated. 2017: 1-2 eggs hatched then chick(s) lost presumed predated. 2018: 2 chicks hatched then assumed predated. 2019: 1 breeding attempt – failed at egg stage. 2020: 1 chick - predated		
61	Willow	М	GPS, RT	GPS ceased to function Oct 2013. Radio tag ceased to function by Oct 2013. Still wearing back pack when sighted in November 2015. Recaptured at Slimbridge in June 2016 and ECOTONE tag fitted. Back pack removed.	ye-gr-bl	Deceased; Possible predation following moult at Slimbridge.	-	-	15/07 2016 (approx)	Dead
62	Wiz	М	RT	Radio tag ceased to function by Oct 2013.	bk-ye-bl	Observed acting territorially with Pippa in late March on Wetmoor - Somerset, and incubating in late April. The nest failed in May and no further attempt was observed. Wiz has been observed with the flock on West Sedgemoor during the Autumn.	C: 1 breeding attempt. Failed at egg stage	2015: no breeding attempt 2016: no breeding attempt 2017: no breeding attempt 2018: 1 breeding attempt rearing 1 chick to fledge. 2019: 1 breeding attempt – 1 chick.		

								Chick lost. 2020: I breeding attempt – failed		
63	Shadow	М	GPS, RT	GPS stopped during Summer 2014. Radio tag ceased to function by Oct 2013. Back pack partly shed July to October 2015. Still wearing back pack when sighted in November 2015 with straps hanging low. Straps still hanging about his legs in February 2016 but not after that so successfully shed.	Gr-re-bl	Shadow was observed on Kingsmoor in March with Christmas Shoes. Just one of the two birds observed feeding so possible incubation around 13th March. Soon after they were together again so if it was a nesting attempt, it failed early on. Shadow has been observed with the flock on West Sedgemoor during the Autumn.	C: 1 possible breeding attempt – failed.	2015: no breeding attempt. 2016: no breeding attempt. 2017: 2 clutches – one abandoned and the second hatched one chick. Chick lost. 2018: 1 clutch – failed at egg stage. 2019:1 attempt -failed at egg stage 2020: I possible attempt - failed		
64	Maple-Glory	F	RT	Radio tag ceased to function by Oct 2013.	Gr-wh-bl	Wycliffe and Maple were observed incubating at RSPB Otmoor in Oxfordshire on the 10th March and hatched one chick which was lost – presumed predated after 5 weeks. No further breeding attempt was observed. Maple has been observed with the flock on West Sedgemoor during the Autumn.	C: 1 breeding attempt, one chick -predated after 5 weeks	2015: 2 eggs failed to hatch. 2016: 2 chicks hatched, both predated. 2017: 1-2 eggs hatched then chick(s) lost presumed predated. 2018: 1 clutch. 2 eggs hatched but failed at late chick stage. 2019: 1 cluch of 2 eggs, both addled 2020: I clutch – 1 chick - predated		
65	D2	М	RT	Radio tag working when found dead on March 31st 2013.	Gr-ye-bl	Died March 2013. Remains found following severe leg injury and then presumed predation by fox	-	-	31/03 2013	
66	Margaret	F	RT	Radio tag ceased to work over summer 2015. Not functioning by October.	Gr-bk-bl	There is no evidence of Margaret pairing up or making any breeding attempt. She has been observed with the flock on West Sedgemoor during the Autumn	N: no known breeding attempt	2015: no breeding attempt. 2016: no breeding attempt. 2017: no breeding attempt. 2018: no breeding attempt. 2019: no breeding attempt 2020: no breeding attempt		

67	Jasper	М	GPS,RT	Radio tag ceased to function Oct 2013. GPS data logger ceased to function Dec 2013. Backpack – no further information during 2016.	bk-re-bl	Jasper was observed with Viridor nest building on West Sedgemoor, Somerset in early March and incubating from 23rd March. Nest failed – cause unknown. Jasper has been observed with the flock on West Sedgemoor during the Autumn.	C: One breeding attempt  – failed at egg stage – cause unknown	2015: no breeding attempt. 2016: 1 clutch, failed at egg stage. 2017: no breeding attempt. 2018: 1 breeding attempt -1 chick successfully reared to fledge. 2019: 2 attempts. 1st failed at egg stage. 2nd 1 chick fledged 2020:1 attempt - failed		
68	Jess	F	RT	Radio tag working when found dead on 11 <sup>th</sup> Nov 2013.	ye-bk-bl	Found dead, September 2013.	-		01/09 2013	
69	Pickles	M	RT	Radio tag ceased to function by Oct 2013.	bk-wh-bl	Incubation on Pickles and Patience's nest West Sedgemoor, Somerset was confirmed on 14th March. Still incubating 22nd March. Observed with 2 chicks in early May. Chicks fledged sometime before 14th July.	C: One successful breeding attempt, fledging two chicks	2015: no breeding attempt. 2016: no breeding attempt. 2017: no breeding attempt. 2018: 1 breeding attempt – failed at chick stage. 2019: 1 attempt fledging 2 chicks 2020: 1 attempt fledging 2 chicks		
2013 re	elease year									
70	Cherry	F	ECO	Ecotone tag stopped working Dec 2013.	re-wh-ye	Cherry was observed on 27th March mating with Soar on Walton moor, Somerset, however, no further breeding activity was observed. Cherry has been observed with Soar regularly among the wintering flock on West Sedgemoor during the Autumn.	N: No known breeding attempt	2016: no breeding attempt. 2017: 2 egg clutch, failed to hatch. 2018: 1 breeding attempt – failed at egg stage. 2019: 1 breeding attempt - failed at egg stage. 2020: No known breeding attempt		
71	Cotton	F	GPS, RT	GPS ceased to function Oct 2014. Radio tag not working when in Somerset in autumn, so assumed failed during the year. Shed backpack during summer 2018	re-bl-ye	2018: Remained at Slimbridge and is not known to have paired or made any breeding attempts.  Died on 26th September 2018.	N: no breeding attempt this year.	2016: Possible nest only. 2017: no breeding attempt. 2018: no breeding attempt.	26/09 2018	

72	Waterwing	F	RT	Radio tag failed in March 2016.	re-gr-ye	Waterwing was observed incubating on Kingsmoor, Somerset on 13th March with nesting possibly since 10th. However, the birds were off the nest on 23rd March - with the attempt believed to have failed. Waterwing has been observed regularly with Bombus amongst the flock on West Sedgemoor during the Autumn.	C: One breeding attempt - failed	2016: no breeding attempt. 2017: Unsuccessful attempt this year. 2018: no breeding attempt. 2019: no known nesting attempts this year. 2020: I attempt failed		
74	Acorn	F	RT	Radio tag working Dec 2016 but failed during 2017.	wh-re-ye	Acorn was observed (photographed) on 4th March with an unringed bird on Kingsmoor, Somerset. Observed again on 17th and identified in flight (due to dangly legs) during the season - no evidence of a breeding attempt. Acorn was observed with the flock on West Sedgemoor in November.	P: Paired but no evidence of breeding	2016: no breeding attempt. 2017: no breeding attempt. 2018: possible breeding attempt. 2019: no breeding attempt 2020: no breeding attempt		
76	wh-gr-ye	М	GPS,RT	Radio tag working when died, Nov 2013. Tag used to locate remains.	wh-gr-ye	Died November 2013.	-		01/11 2013	01/11 2013
77	Billy	М	RT	Radio tag working Dec 2015. Not known if still working during 2016.	wh-bk-ye	Went missing in late 2016	-	-		Missing from late 2016
79	Excalibird	F	RT	Radio tag working intermittently March 2015 failed by end of summer 2015.	bl-wh-ye	Excalibird was observed incubating with Ted at Otmoor (Oxon) on 17th March. 1 chick hatched from this attempt but was predated by a Marsh Harrier after 10 days. The pair have been observed regularly with the flock on West Sedgemoor during the Autumn.	C: One breeding attempt, one chick predated after 10 days	2016: no breeding attempt. 2017: no breeding attempt. 2018: no breeding attempt. 2019: no breeding attempt 2020: 1 attempt – 1 chick, predated		
80	Viridor	F	RT	Radio tag failed in September 2016.	bl-re-ye	Observed on 8th March with Jasper on West Sedgemoor in their usual territory nest building and again on 17th. The pair were still feeding together on	C: One breeding attempt  – failed at egg stage – cause unknown	2016: no breeding attempt. 2017: no breeding attempt. 2018: 1 breeding attempt – 1 chick reared to fledge. 2019: 2 attempts – 1st failed at		

						22nd March, but incubating on 23rd. The attempt failed at the egg stage – cause unknown. The pair have been observed regularly with the flock on West Sedgemoor during the Autumn.		eggs stage, 2nd fledged 1 chick found dead. 2020: 1 attempt -failed		
81	Вор-Вор	F	GPS,RT	GPS ceased to function 20 <sup>th</sup> May 2014. Radio tag failed during 2017. Backpack still being worn, but malpositioned reported in Spring 2018.	bl-bk-ye	BopBop was observed at Otmoor (Oxon) on 17th March but wasn't believed to be paired up. She didn't appear to be hang around, and has been observed regularly with the flock on West Sedgemoor during the Autumn.	N: no breeding attempt.	2016: no breeding attempt. 2017: no breeding attempt. 2018: no breeding attempt 2019: no breeding attempt 2020: no breeding attempt		
82	Skye	F	ECO	Ecotone tag stopped working Dec 2013.	ye-re-ye	Skye has not been observed since January 2019	N: n/a	2016: no breeding attempt. 2017: no breeding attempt. 2018: no breeding attempt. 2019: no breeding attempt		Missing since Feb 2018 (Jan 2019)
83	Stowford	М	RT	Radio tag failed in April 2016	ye-wh-ye	Stowford has not been seen since December 2016.	-	2016: no breeding attempt.		Missing Jan 2017
84	Sven	М	GPS,RT	GPS and Radio tag working when euthanased March 2014.	ye-bl-ye	Collision injury lead to euthanasia at RSPCA March 2014. Injuries suggested collision with probable powerline or other obstacle.	-	-	08/03 2014	
85	Stanley	М	RT	Radio tag working Dec 2015.	ye-gr-ye	Stanley was found dead having flown into a barbed wire fence in February 2016	-	None.	29/02 2016	

86	Bombus	М	RT	Radio tag ceased to function Nov 2014.	ye-bk-ye	Observed incubating on Kingsmoor, Somerset on 13th March with nesting possibly since 10th. However, the birds were off the nest on 23rd March - with the attempt believed to have failed. Bombus has been observed regularly with Waterwing amongst the flock on West Sedgemoor during the Autumn. In December he was photographed in flight showing damage to his right wing which is missing several primary feathers. The cause is umknown.	C: One breeding attempt  – failed – cause unknown	2016: no breeding attempt. 2017: no breeding attempt. 2018: no breeding attempt. 2019: no breeding attempt 2020: 1 attempt - failed		
87	Manfred	М	ECO	Ecotone ceased to function August 2015.	gr-re-ye	Observed on his West Sedgemoor territory with Diamond on 17th March and was believed to have started incubating around then with a changeover at the nest witnessed on 22nd. The nesting attempt failed to produce any chicks. No further attempts were recorded. The pair have been regularly with the flock on West Sedgemoor during the Autumn.	C: One breeding attempt  – failed – cause unknown	2016: no breeding attempt 2017: 2 attempts 1 abandoned, the other produced one fledged chick 2018: I breeding attempt failed at chick stage. 2019: 2 breeding attempts – 1st failed at egg stage, 2nd fledged 1 chick 2020: 1 attempt - failed		
88	Buttercup	F	RT	Radio tag not assessed at time of death.	gr-wh-ye	Died of disease, July 2016.		-	July 2016	Dead
89	Cookie	F	RT	Radio tag ceased to function Jan 2015.	gr-bk-ye	Not accounted for during the spring but recorded in Dorset with Pepe in August – appears to be paired to Pepe and may have had a breeding attempt. Also observed regularly at WWT Slimbridge during the Autumn.	N: no known breeding attempt	2016: no breeding attempt 2017: no breeding attempt 2018: no breeding attempt 2019: no breeding attempt 2020:no breeding attempt		
90	Frieden	F	RT	Radio tag working, although possibly failing when birds went missing, Dec 2013.	bk-re-ye	Went missing December 2013. No further sightings	-	-		Missing Dec 2013

91	Oakie	М	RT	Radio tag ceased to function May 2014.  Radio tag ceased to work March	bk-wh-ye	Oakie and Sherbert hatched 2 chicks within the reserve at WWT Slimbridge but one chick died soon after. The second was found dead with an impact injury. The pair have been observed regularly at Slimbridge during the Autumn.  Went missing May 2014. No	C: One nesting attempt, two chicks, both died	2016: Possible nest only. 2017: no breeding attempt. 2018: 1 breeding attempt – 1 chick reared to fledge. 2019: Two nesting attempts, both failed at egg stage 2020: 1 attempt, 2 chicks – both died	
93	Misty Moor	М	RT	2014. Bird went missing May 2014.	bk-gr-ye	further sightings.	-	-	Missing May 2014
2014 re	elease year								
94	Chip	F	RT	Radio tag ceased to work over Summer 2015.	re-wh-bk	No evidence of pairing or breeding. Chip has been observed with the flock on West Sedgemoor during the Autumn	N: Unpaired - no breeding attempt	2017: No breeding attempt 2018: no breeding attempt. 2019: no breeding attempt 2020: no breeding attempt	
95	Pecky	M	GPS,RT	Radio tag working until March 2016. Backpack ceased to work during the summer 2016. Not assessed if still wearing by Dec 2016 Dec 2017 or Dec 2018.	re-bl-bk	Observed on his West Sedgemoor- Somerset territory with Regina on 16th March. The pair hatched a single chick but it was lost at 14 days – cause unknown. Pecky was observed with the flock on West Sedgemoor in November.	C: One successful nesting attempt but chick lost after 14 days – cause unknown	2017: No breeding attempt. 2018: 1 breeding attempt – failed at chick stage. 2019: 1 successful attempt but chick lost pre-fledge 2020: I attempt, 1 chick – lost.	
96	Soar	М	RT	Radio tag working Feb 2017 but failed during the summer.	re-ye-bk	Soar and Cherry were observed (photographed) mating and bonding on Walton moor on 27th March. There is no evidence of a breeding attempt, but it is possible. The pair have been observed regularly with the flock on West Sedgemoor during the Autumn.	N: no known breeding attempt.	2017: No breeding attempt. 2018: no breeding attempt. 2019: No breeding attempt 2020: no breeding attempt	
97	Ted	М	RT	Radio tag failed November 2015.	bk-ye-bk	Observed with Excalibird at RSPB Otmoor (Oxon) on 17th March. 1 chick hatched but was predated by a March Harrier after 10 days. The pair have been regularly observed with the	C: One breeding attempt, one chick – predated after 10 days	2017: No breeding attempt. 2018: no breeding attempt. 2019: no breeding attempt 2020: 1 attempt, 1 chick - predated	

			1	T	I	flock on West Sedgemoor during	I	T	1
						the Autumn.			
98	Patience	F	GPS,RT	Backpack ceased to work during the summer 2016. Radio tag working May 2017 but failed during the autumn 2017. Not assessed if still wearing backpack by Dec 2018.	wh-re-bk	Patience and Pickles were on their West Sedgemoor, Somerset territory on 11th March. Incubation was confirmed on 14th March with 2 chicks seen in early May. The chicks fledged sometime before 14th July. The pair with their juveniles has been observed regularly with the flock on West Sedgemoor during the Autumn.	C: One successful breeding attempt resulting in 2 fledged chicks	2017: No breeding attempt 2018: 2 breeding attempts, 1st failed at egg stage, 2nd hatched but chicks lost early. 2019: 1 successful attempt - 2 fledged chicks 2020: 1 successful attempt - 2 fledged chicks	
100	Century	F	RT	Radio tag failed from March 2016.	wh-ye-bk	Missing, presumed dead. Not observed this year	N: Not se	2017: Not seen since May – so unknown 2018: no breeding attempt 2019: missing	Missing since March 2018
102	Dillon	М	GPS,RT	Radio tag ceased to work during summer 2015. Backpack ceased to work during the summer 2016 Not assessed if still wearing by Dec 2016. Missing all 2017.	bl-re-bk	Went missing Dec 2016.	-	-	Missing since Dec 2016
103	Rosa	F	RT	Radio tag working July 2017 but failed during the autumn.	bl-wh-bk	No evidence of breeding, but possible as Rosa and an unringed bird appeared to hold a territory on West Sedgemoor . Rosa has been observed regularly with the flock on West Sedgemoor during the Autumn.	N: no known breeding attempt.	2017: No breeding attempt 2018: no breeding attempt 2019: no breeding attempt 2020: no breeding attempt	
104	Sherbert	F	GPS, RT	Radio tag failed – end Nov/December 2015. Backpack ceased to work during the summer 2016. Backpack strap visible between upper legs December 2017.	bl-ye-bk	Sherbert remained at WWT Slimbridge, paired with Oakie and hatched 2 chicks on the WWT Slimbridge Reserve. One was lost soon after hatching, and the second was found dead with	C: One breeding attempt, two chicks – both died (one as a result of impact injury)	2017: No breeding attempt 2018: 1 breeding attempt – 1 chick fledged. 2019: 2 attempts both failed 2020: 1 attempt - failed	

				Backpack status currently unknown.		an impact injury. The pair have been observed regularly at Slimbridge during the Autumn.				
105	Kia	F	GPS,RT	Backpack ceased to work during the summer 2016. Radio tag detached and recovered in July 2017 on Aller Moor. Not assessed if still wearing backpack by Dec 2018	wh-bl-bk	Kia paired with Chocolo and bred within the WWT Slimbridge Reserve, hatching 1 chick. It was predated after 3 weeks. The pair have been observed regularly at WWT Slimbridge during the Autumn.	C: One breeding attempt, one chick – predated after 3 weeks	2017: No breeding attempt 2018: No breeding attempt 2019: No breeding attempt 2020: 1 attempt, 1 chick - predated		
106	Yellow Red Black	М	GPS, RT	Radio tag working when found dead in November 2015 Backpack still functioning when found dead in November 2015.	ye-re-bk	Found dead in November 2014.	-	-	05/11 2014	
107	Diamond	F	RT	Radio tag working until October 2016 – failed Nov 2016	ye-wh-bk	Diamond and Manfred were observed on their West Sedgemoor territory on 17th March. A changeover was witnessed on 22nd indicating that they were nesting. They may have produced chick/s but ultimately the breeding attempt failed. No evidence of a second attempt. The pair have been observed regularly with the flock on West Sedgemoor during the Autumn.	C: One beeding attempt  – failed – cause unknown	2017: 2 attempts 1 abandoned, the other produced one fledged chick 2018: 1 breeding attempt – 2 chicks both lost. 2019: 2 attempts. 1st failed at egg stage. 2nd fledged 1 chick 2020; 1 attempt - failed		
108	Gary	М	RT	Radio tag working until September 2016 when it fell off and was recovered from West Sedgemoor.	ye-bl-bk	Gary has paired with Gemma but no evidence of a breeding attempt was observed. He and Gemma have been observed with the flock on West Sedgemoor during the Autumn.	N: No known breeding attempt	2017: No breeding attempt 2018: no breeding attempt 2019: no breeding attempt 2020: no breeding attempt		
109	Cleg	М	ECO	Ecotone tag working Dec 2016 2015 Ecotone tag working throughout 2017 and 2018	bk-gr-bk	Cleg and his new partner Michaela, remained on Michaela's territory on West Sedgemoor and started incubating some time before 17th May. One chick survived	C: One successful breeding attempt - one chick survived to fledge	2017: One clutch of 2 eggs failed to hatch. 2018: 1 clutch – failed at egg stage. 2019: One attempt – failed 2020: 1 attempt, 1 chick fledged		

						and fledged some time before 25th July. The family have been observed regularly with the flock on West Sedgemoor during the Autumn.				
110	Pepé	М	RT	Radio tag failed Dec 2015.	gr-re-bk	Not seen during the Spring, Pepe was observed with Cookie in Dorset on 2nd June. No evidence of breeding but it was certainly possible that the pair made an attempt. They were observed at WWT Slimbridge in August. Pepe has been observed with the flock both on West Sedgemoor and at Slimbridge during the Autumn.	N: No known breeding attempt	2017: No breeding attempt 2018: no breeding attempt 2019: no breeding attempt 2020: no breeding attempt		
113	Ziggy	F	RT	Radio tag fell off in late November 2015. Still working and retrieved from Hambridge block, West Sedgemoor.	bk-re-bk	Ziggy has not been seen for over a year.	N: Unpaired and non- breeding.	2017: No breeding attempt 2018: no breeding attempt 2019: no breeding attempt 2020: no breeding attempt		
114	Humbug	F	RT	Radio tag working when found dead in November 2015.	bk-wh-bk	Found dead on West Sedgemoor Nov 2014.	-	-	03/11 2014	

## Appendix



Pickles showing problem with harness strap in March 2020. He later shed the harness successfully (Photo John Crispin)



Cookie and Pepe photographed in Dorset in August 2020 (Photo Brian Chard)