Chew Valley Ringing Station

19th Report 2016 - 2018

Herriott's Bridge, Bath Road, West Harptree, Bristol. BS40 6HN

19th Report: 2016, 2017 and 2018

Contents

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Editorial

I would like to thank the following for their help and encouragement in producing our 19th report.
Mark Dadds, Bob Medland and Robin Prytherch for the many helpful suggestions whilst the report was in progress.
The members of our data group, especially Alan Ashman for help in collating the ringing recoveries and totals.
Mark Dadds and Patrick Hancock for contributions in the form of articles and images.
Chris Craig for compiling the Annual Accounts.

CVRS Officers 2016 - 2018

Chairman	Bob Medland
Treasurer	Chris Craig
General Secretary	Mike Bailey
Ringing Secretary	Alan Ashman

CVRS website www.chewvalleyringingstation.co.uk
Constructed and maintained by Paul House

Previous Reports

Copies of some of our reports are still available. The rest are out of print but archive copies of all earlier reports are available for reference at the ringing station.

Acknowledgements

We are extremely grateful to Bristol Water for their continued support and our particular thanks to Patric Bulmer, Natasha Clarke, Kirsty Dunford and Steven Smith with whom we have the most contact.

Mike Bailey.

The Chairman's Lot

(A résumé of three years of chairmanship 2016 – 2018)

Many voluntary organisations place a limit on the period for which a Chairman may serve. There are good reasons for this. Enthusiasm must be sustained for what can be a demanding (if voluntary) role, there are the benefits of new ideas and approaches being introduced on a periodic basis – and it's good to share the responsibility. So, when I accepted the nomination for the role in January 2016, I saw this as an opportunity to try and help a number of aspects of the ringing station in a limited period of time. Much of this has been spent on essentially administrative matters, often tedious but essential. I now have the opportunity to reflect upon the successes and outstanding challenges from my period of tenure. It had its moments.

My first and foremost objective was to establish and develop a strong rapport with our landlords, Bristol Water. Despite difficulties that the company faced three years ago, I have been delighted with the interest, enthusiasm and support that they have given to the ringing station. Special thanks are due to Steve Smith, Kirsty Dunford and Natasha Clarke. This summary of activities cannot do justice to the level of support we have received but I wish to record our grateful thanks to Bristol Water for the following:

- Hosting the annual 'Lake Users' Meeting' at which we give a presentation (and enjoy refreshments)
- Reviewing the status of our tenure (it seems no formal agreement was ever in place) and recognising the contribution that CVRS makes towards understanding and supporting conservation of the lake avifauna
- Funding for habitat management work by contractors
- Funding the cost of testing and overhaul of the electrics of 'The Hut'
- Subsidising the cost of Canada Goose rings and providing the boats required for the round-up at no cost
- Subsidising the cost of this three-yearly report.

From the start, I needed to understand how CVRS as an organisation was run and how its finances could become sustainable. It was clear that the existing constitution was an archaic and unworkable document which did nothing to enable a committee to operate efficiently. So at the 2017 AGM it was good that there was unanimous support for a new constitution which established the new committee format of five officers. Since then the committee has functioned well, no small thanks to those involved, in particular our secretary Mike Bailey who without doubt is the stalwart of the group. Another important change was to raise the status of trainees who may now participate in meetings and decision-making of the group. Financially, with a turnover of around £3,000 pa, CVRS needs careful financial planning and management to keep it on a sound footing and this has been in the capable hands (or books) of our treasurer, Chris Craig. Surplus income from ringing courses, as well as grants from the BTO towards running Constant Effort Schemes, have delivered enough income for reserve funds to cater for both annual costs and any extraordinary costs that may arise in the foreseeable future.

The ringing station premises is known affectionately as 'The Hut'. This is something of a misnomer and under-sells CVRS's base for its ringing operations: it is really a well-equipped, timber bungalow if somewhat dated. The combined demands of a bird-ringing laboratory and catering for the ringing course dictated that an overhaul of the interior was needed. Most of the flooring has been renewed, a new shower fitted and the kitchen refurbished to improve lighting and hygiene. There is always more to be done but our accommodation is now far more welcoming and fit for purpose.

Habitat management of the ringing sites is a major drain on our physical resources, especially since the stands of invasive willows have been reaching maturity. Our sites lie within the lake's designated SSSI/SPA defined status and the designated nature reserve, so a balance needs to be struck between management for conservation purposes and retaining existing habitat to maintain consistency for ringing purposes, not least the two Constant Effort Scheme sites. In terms of monitoring population and breeding success, CES comprises some of the most important ringing carried out in the British Isles. Much hard work has been put in by a small number of volunteers from within the group, augmented in recent years through liaison with The Conservation Volunteers charity to great effect, as well as contractors funded by Bristol Water. Three years' worth of solid effort has paid off and we now have the desired mix of pure reedbed, mixed sedge/willow and woodland that is now hopefully more manageable and sustainable.

At this stage, mention must be made of the controversial proposals by Sustrans to create a 'round-lake' cycle path. Whilst CVRS supports the concept in principle, unacceptable proposals were put forward to Bath & North East

Somerset Council for planning consent without proper consultation with CVRS or other interested parties. As proposed, the cyclepath would have had damaging and permanent impact upon CVRS ringing sites, its operations and habitat generally. Thankfully the proposals for the southern part of the lake have since been withdrawn from the planning application and we welcome the opportunity for future consultation to try and find a suitable compromise.

CVRS is well-known across the national ringing scheme, not least for its annual ringing course. This is run on a residential basis to enable participants from anywhere in the UK to come for several days' experience and to be assessed for progression to different levels of permit. In recent years the course has gone from strength to strength, having been expanded to accommodate eight participants over four days' duration. We aim for constant improvement from year to year and, given the feedback received from both participants and those involved, we are successfully maintaining and raising standards of training and ringing itself. We are indebted to the BTO for financial support as well as funding visiting representatives, the latter being much appreciated by participants as an opportunity to meet 'people from HQ'. Huge thanks are due to the volunteer trainers and others who voluntarily give so such time and effort (thus incurring expense) in supporting the courses year on year. Trainees are, of course, the future of the ringing scheme, a topic which leads me on neatly . . .

What of the future? The future operations and success of the ringing station and a significant contributor to the BTO's ringing scheme are dependent upon the continuing support number of factors. We need to examine ourselves as a group and to consider how well-placed we are to sustain future operations. Inevitably this means training the next generation of ringers but where will they come from? We live in rapidly changing times and are experiencing significant demographic and sociological changes. Behind these words lie some basic facts: the age-profile of many clubs, groups and voluntary organisations like CVRS is becoming increasingly older; people are increasingly mobile; younger people have hugely increased demands on their time, from either education or work. And, of course, the world of communications has changed and continues to change in ways that most people would not have foreseen 30 years ago. The concept of taking a local youngster 'under our wing' through to basic qualification and beyond has now become the exception to the rule. This means that the training function of CVRS now serves a more transient type of trainee ringer, who may not be active with the ringing station from start to finish of training and who, most likely, will not stay in the area for very long afterwards. But hopefully that 'loss' will be balanced by gains of trainees or trained ringers moving into the area. The number of active trainees is now very low and we do need to consider how we can reach out to people, given the generally increasing awareness of environmental issues. So I end this with a plea: firstly that CVRS needs to consider raising its profile with local educational establishments, from schools to universities; and secondly that capable, qualified ringers should consider whether they can seek a trainer's endorsement and commit to assisting in the training of the next generation. In the words of Alan Bennett "Pass it on, boys, pass it on!".

Bob Medland

CVRS Ringed Species Totals for 1963 to 2018 with sub-totals 1963 to 2015, 2016, 2017 and 2018

	Species	1963-2015	2016	2017	2018	1963-2018
1	Great Crested Grebe	21	0	0	0	21
2	Little Grebe	27	0	0	0	27
3	Cormorant	1	0	0	0	1
4	Grey Heron	1	0	0	0	1
5	Mute Swan	176	18**	12	6	212
6	Greylag Goose	5	1	0	0	6
7	Canada Goose	5265	153	52	139	5609
8	Egyptian Goose	1	0	0	0	1
9	Barnacle Goose	1	0	0	0	1
10	Shelduck	2	0	0	1*	3
11	Wigeon	60	0	0	0	60
12	Gadwall	6	0	0	0	6
13	Teal	115	23	9	0	147
14	Mallard	468	13	13	7	501
15	Pintail	2	0	0	0	2
16	Garganey	2	0	0	0	2
17	Shoveler	2	0	0	0	2
18	Pochard	3	0	0	0	3
19	Tufted Duck	36	1	0	0	37
20	Goldeneye	2	0	0	0	2
21	N.A.Ruddy Duck	1	0	0	0	1
22	Sparrowhawk	94	0	2	2	98
23	Kestrel	21	0	4	0	25
24	Hobby	3	0	0	0	3
25	Buzzard	9	0	0	0	9
26	Water Rail	161	17	17	6	201
27	Spotted Crake	6	0	0	0	6
28	Moorhen	746	11	12	12	781
29	Coot	233	1	0	0	234
30	Little Ringed Plover	10	0	0	0	10
31	Ringed Plover	110	0	0	0	110
32	Lapwing	18	0	0	0	18
33	Knot	1	0	0	0	1
34	Little Stint	8	0	0	0	8
35	Temmink's Stint	1	0	0	0	1
36	Curlew Sandpiper	6	0	0	0	6
37	Dunlin	274	0	0	0	274
38	Ruff	11	0	0	0	11
39	Jack Snipe	4	0	0	0	4
40	Snipe	213	0	0	0	213
41	Black-tailed Godwit	1	0	0	0	1
42	Curlew	6	0	0	0	6

	Species	1963-2015	2016	2017	2018	1963-2018
43	Whimbrel	5	0	0	0	5
44	Spotted Redshank	4	0	0	0	4
45	Redshank	15	0	0	0	15
46	Greenshank	17	0	0	0	17
47	Green Sandpiper	27	0	0	0	27
48	Wood Sandpiper	11	0	0	0	11
49	Common Sandpiper	255	0	0	0	255
50	Black Headed Gull	78	4	1	0	83
51	Lesser Black-backed Gull	11	0	0	0	11
52	Herring Gull	1	1*	1*	0	3
53	Great Black-backed Gull	1	0	0	0	1
54	Black Tern	1	0	0	0	1
55	Little Auk	1	0	0	0	1
56	Stock Dove	15	16**	3	6	40
57	Wood Pigeon	78	4	2	4	88
58	Cuckoo	27	0	0	0	27
59	Collared Dove	0	0	0	1*	1
60	Barn Owl	75	6	5	2	88
61	Little Owl	1	0	0	0	1
62	Tawny Owl	38	2	3	2	45
63	Long Eared Owl	1	0	0	0	1
64	Short Eared Owl	1	0	0	0	1
65	Swift	1793	0	1	0	1794
66	Kingfisher	662	6	4	2	674
67	Wryneck	3	0	0	0	3
68	Green Woodpecker	17	1	0	0	18
69	Great Spotted Woodpecker	176	5	5	4	190
70	Lessr Spotted Woodpecker	9	0	0	0	9
71	Skylark	11	0	0	0	11
72	Sand Martin	4861	20	2	13	4896
73	Swallow	17673	373	186	111	18343
74	House Martin	3650	0	18	0	3668
75	Tree Pipit	17	0	0	0	17
76	Meadow Pipit	121	10	0	0	131
77	Water Pipit	3	0	0	0	3
78	Rock Pipit	6	0	0	0	6
79	Yellow Wagtail	515	0	0	0	515
80	Grey Wagtail	28	0	0	1	29
81	Pied Wagtail	1478	1	1	4	1484
82	Wren	4909	87	104	113	5213
83	Dunnock	3037	87	81	68	3273
84	Robin	3164	79	84	67	3394

	Species	1963-2015	2016	2017	2018	1963-2018
85	Nightingale	6	0	0	0	6
86	Bluethroat	1	0	0	0	1
87	Redstart	64	0	1	0	65
88	Whinchat	40	0	0	0	40
89	Stonechat	22	0	0	0	22
90	Wheatear	4	0	0	0	4
91	Blackbird	2384	48	55	41	2528
92	Fieldfare	75	1	2	1	79
93	Mistle Thrush	17	0	0	0	17
94	Song Thrush	1053	32	27	35	1147
95	Redwing	403	6	17	9	435
96	Cetti's Warbler	617	37	54	66	774
97	Savi's Warbler	1	0	0	0	1
98	Grasshopper Warbler	58	0	0	1	59
99	Aquatic Warbler	10	0	0	0	10
100	Marsh Warbler	1	0	0	0	1
101	Sedge Warbler	18052	171	189	243	18655
102	Reed Warbler	37377	1146	1042	1279	40844
103	Lesser Whitethroat	2090	16	3	9	2118
104	Whitethroat	1778	10	5	4	1797
105	Garden Warbler	2720	20	26	28	2794
106	Blackcap	8721	175	183	370	9449
107	Yellow-browed Warbler	2	1*	0	0	3
108	Wood Warbler	5	0	0	0	5
109	Chiffchaff	13370	294	318	219	14201
110	Willow Warbler	6076	39	22	24	6161
111	Goldcrest	1454	108	50	43	1655
112	Firecrest	13	0	1	0	14
113	Spotted Flycatcher	165	0	0	0	165
114	Pied Flycatcher	4	0	0	0	4
115	Bearded Tit	61	0	22	0	83
116	Long-tailed Tit	3486	97	99	73	3755
117	Marsh Tit	124	1	10**	1	136
118	Willow Tit	4	0	0	0	4
119	Coal Tit	650	34	40**	33	757
120	Blue Tit	17329	458	519	581	18887
121	Great Tit	8376	236	296	361	9269
122	Nuthatch	27	5	1	0	33
123	Treecreeper	821	22	22	31	896
124	Red-backed Shrike	1	0	0	0	1
125	Jay	51	2	1	2	56
126	Magpie	58	0	1	0	59

	Species	1963-2015	2016	2017	2018	1963-2018
127	Jackdaw	342	8	7	13	370
128	Rook	118	0	0	0	118
129	Carrion Crow	81	1	0	0	82
130	Raven	4	0	0	0	4
131	Starling	2307	1	2	0	2310
132	House Sparrow	169	6	23	49**	247
133	Tree Sparrow	250	0	0	0	250
134	Chaffinch	3847	44	27	67	3985
135	Brambling	32	0	0	2	34
136	Greenfinch	5151	11	0	1	5163
137	Goldfinch	1010	42	124	253**	1429
138	Siskin	133	1	3	7	144
139	Linnet	169	0	0	0	169
140	Redpoll	181	1	3	1	186
141	Bullfinch	1224	21	26	19	1290
142	Yellowhammer	2	0	0	0	2
143	Reed Bunting	3977	66	39	81	4163
144	Little Bunting	1	0	0	0	1
	Totals	**197498**	**4101**	**3882**	**4518**	**209999**

Figures highlighted in YELLOW ** are the highest annual total and those highlighted in GREEN * are equal to the highest annual total for CVRS since 1963.

CVRS Ringing Recoveries and Controls 2016 - 2018

Collated by Alan Ashman

Included here are the recoveries of CVRS birds (found elsewhere) and the controls by CVRS (bird that have been ringed elsewhere but subsequently found at Chew). These have been received from the British Trust for Ornithology since our 18th Report. Most of the reports of our ringed birds that have been found nearby in the Chew Valley Lake area have been omitted.

Each record consists of the following:
First line: Ring number: Age using the Euring Code and sex: Ringing date: Ringing Place: Distance (in kms)
Second line: Recovery date: Place recovered, Duration between ringing date and finding date:

Species Ring No	Age Sex	Date ringed Date rec'd	Place ringed Place recovered Comments	Distance km Duration
Mute Swan				
W32424	5	5-Mar-2016 11-Jul-2016	CVL A368 West Harptree. Killed, road casualty	5 km 0y 4m 7d
Z82710	8	26-Mar-2016 23-Mar-2018	CVL Bristol. Ring no read	14 km 1y 11m 27d
W37239	8	24-Feb-2017 23-Mar-2018	CVL Bristol (ARC Clinic) St. Phillips Euthanased Poor condition	14 km 1y 0m 26d
Canada Goose				
5174559	4	5-Jul-1994 8-Jan-2017	CVL roundup Milbourne Port, Yeovil. Somerset Ring only found by metal detector	41 km 22y 6m 6d ??
5254333	4	24-Jun-2008 1-Sep-2016	CVL roundup Kingston Seymore Sea Wall N. Som. Shot	20 km 8y 2m 9d
5250524	2	10-Dec-2008 10-Mar-2017	Slimbridge Glos.WWT CVL Ring no read	50 km 8y 2m 30d
5259111	4	29-Jun-2010 7-Jul-2016	CVL roundup Llanwern, Newport, Wales	36 km 6y 0m 8d
5262150	4	28-Jun-2011 26-Jun-2016	CVL roundup Llangorse Lake, Powys	80 km 4y 11m 29d
5262098	4	28-Jun-2011 18-Apr-2018	CVL roundup Doxey Marshes, Stafford. Staffordshire Ring only found	168 km 6y 8m 19d
5260813	4	5-Jul-2012 4-Jul-2017	Pit 9 Cotswold W.P. Gloucester CVL roundup	64 km 4y 11m 29d
5239932	4	9-Jul-2013 27-Jan-2017	CVL Edington, Somerset. Shot	26 km 3y 6m 21d
5264911	4 M	9-Jul-2013 9-Nov-2018	CVL Awre, Newnham, Gloucester. Shot	50 km 5y 4m 2d

Species Ring No.	Age Sex	Date ringed Date rec'd	Place ringed Place recovered	Distance km Duration
Canada Goose			**Comments**	
5264923	4	24-Jun-2014 13-Dec-2017	CVL Ferry Meadows C.P. Peterborough Cambs. Recovery report 'Hunted!'	210 km 3y 5m 21d
5267926	4 F	24-Jun-2014 7-Jan-2019	CVL Exminster, Devon. Shot	97 km 4y 6m 15d
5267952	4	30-Jun-2015 5-Oct-2016	CVL Clevedon, N. Somerset. Shot	22 km 1y 3m 7d
5275139	4	30-Jun-2015 29-Oct-2016	CVL Wembdon, Somerset. Shot	35 km 1y 4m 1d
5268000	4	30-Jun-2015 26-Nov-2016	CVL Sandford, N. Somerset. Shot	15 km 1y 4m 29d
5275137	4	30-Jun-2015 2-Jan-2017	CVL Aldeholt, Hampshire Shot	73 km 1y 6m 5d
5264930	4	30-Jun-2015 1-Sep-2017	CVL Kingston Seymour, North Som. Shot	18 km 2y 2m 4d
5275114	4	30-Jun-2015 30-Sep-2017	CVL Brean, Somerset Shot	27 km 2y 3m 2d
5267978	4	30-Jun-2015 8-May-2018	CVL Shobrook Pk. Crediton, Devon. Ring read	93 km 2y 10m 8d
5275138	4	30-Jun-2015 8-Jul-2018	CVL Clevedon Moor, North Somerset Ring read	18 km 3y 0m 8d
5275105	4	30-Jun-2015 8-Jul-2018	CVL Clevedon Moor, North Somerset Ring read	18 km 3y 0m 8d
5278077	4	5-Jul-2016 9-Jul-2016	CVL Ubley, N. somerset. Shot	4 km 0y 2m 6d
5278188	4	4-Jul-2017 27-Dec-2017	CVL Standerwick, Frome. Somerset Shot	23 km 0y 5m 24d
5163696	4	4-Jul-2017 1-Feb-2018	CVL Marston Bigot, Som. Shot	24 km 0y 6m 30d
5275104	4	30/06/;2015 2-Jan-2018	CVL Puxton, Som. Shot	18 km 2y 6m 5d
5267988	4	30/096/2015 15-Sep-2017	CVL Shepperdine Hill, Thornbury, S. Glos. Shot	40 km 2y 2m 18d

Species Ring No	Age Sex	Date ringed Date rec'd	Place ringed Place recovered Comments	Distance km Duration
Teal				
ER51755	3	21-Nov-2011 21-Jan-2018	CVL Amfreville, Picauville, Manche France	234 km 6y 2m 2d
EZ04520	3	19-Dec-2015 27-Oct-2016	CVL Bayeux, Seine Maritime, France. Hunted	342 km 0y 10m 8d
Tufted Duck				
SS40280	3	12-Apr-1967 22-May-1972	CVL Berzovo (Tyumen_) USSR Shot	4035 km 4y 1m 2d
SS87170	4	23-Aug-1970 5-Mar-1974	CVL Tjeuke Meer, Friesland, Netherlands Drowned in fishing nets.	599 km 3y 6m 13d
FT00408	6	24-Jan-2014 10-Feb-2014	CVL Blunham, Bedfordshire, WWT 9100	185 km 0y 0m 17d
Kestrel				
EZ84502	1	18-Jun-2017 15-Mar-2018	CVL Bradley Cross, Cheddar, Som. Freshly Dead entered building.	12 km 0y 8m 26d
Black-headed Gull				
648991	1	21-Jun-1991 23-Feb-2017	Veno Struer Ringkebing Ant Denmark CVL Sight record P. Burston. N.B. age 25+ Years!	940 km 25y 8m 4d
EY85304	6	21-Mar-2015 30-Jul-2016	Pitsea Landfill Site, Basildon, Essex North Thames Gull group CVL	220 km 1y 5m 23d
YELLOW T42P	3	21-Oct-2015 16-Feb-2017	Olsztyn Warminsko-Mazurskie Poland CVL Sight record (Simon Mackie)	1750 km 1y 3m 28d
EY55286	6	16-Jan-2016 22-Oct-2016	Poole Park, Poole, Dorset CVL Sight record	82 km 0y 9m 6d
EZ64208	2	7-Jun-2016 07/03/22017	Marsh Lane Nature Reserve. Solihull CVL Darvic white 2ATH on black: P. Burston	137 km 0y 8m 30d
6J**5047	8	2015 19-Feb-2017	Gentofte DKHS Denmark CVL Sight record	970 km ??
EY03442	1	10-Jun-2013 9-Aug-2016	Cotswold Water Park, Cerney Wick, Glos. CVL Sight record	63 km 3y 2m 1d
EY55286	6	16-Jan-2016 30-Jul-2016	Poole Park, Dorset CVL Sight record C.M. Reynolds	82 km 0y 6m 14d
EY83337	1	11-Jun-2016 11-Aug-2016	Hosehill Lake LNR CVL Sight record. Colour ring White 2V37	109 km 0y 2m 1d

Species Ring No	Age Sex	Date ringed Date rec'd	Place ringed Place recovered Comments	Distance km Duration
Black-headed Gull				
ST180535	6	14-Jul-1996 10-Aug-2018	Turku Varsinals-Suomi Turku-Pori Finland CVL Ring read P. Burston	1847 km 22y 0m 26d
S7602	6	20-Apr-2009 14-Dec-2014 16-Dec-2017	Riga, Latvia CVL (see 18th report) CVL Metal ring read P. Burston	1834 km 5y 7m 26d 8y 7m 27d
62220147	1	25-Jun-2011 16-Dec-2017	Askiljeby, Dasterbotten Sweden CVL Metal ring read	1919 km 6y 5m 23d
K02185	1	14-Jun-2015 17-Aug-2018	Sandre Langara Frogn Norway CVL P.Burston also at CVL 2016 & 2017 Colour ring LBGW in white	1247 km 3y 2m 5d
EY55286	6	16-Jan-2016 20-Aug-2017	Poole Park, Poole, Dorset CVL found freshly dead	82 km 1y 7m 4d
EZ04570	4	10-Nov-2016 16-Apr-2018	CVL Utterslev-Torv, Kobenhavn Denmark	1111 km 1y 5m 5d
T9TU	6	31-May-2018 3-Nov-2018 19-Jan-2019	Koscieszki, Kujawsko-Pomorskie, Poland CVL colour ring CVL colour ring	1435 km 0y 7m 20d
EZ04573	3	24/11/20916 12-Sep-2018	CVL Sandown, I. O. Wight Ring no read.	126 km 1y 9m 18d
Lesser Black-backed Gull				
LV6996	5	24-Jan-2016 30-Jul-2017	Quinta De Marim, Olhao, Portugal (RIAS rehab). CVL. Ring read. M. Rowan	1658 km 1y 6m 7d
GV43804	1	25-Jul-2017 2-Jul-2018	Bath CVLSighting record P. Burston.	18 km 1y 0m 2d
FH09254	3	4-Jul-2015 13-May-2017	Flatholm Island, Cardiff CVLSighting record P. Burston.	34 km 0y 10m 8d
Yellow-legged Gull				
MA01255	1	25-May-2016 25/07/20`6	Fanel Neuchatel Switzerland CVL Sight Record Andy Davis	852 km 0y 2m 1d
Swallow				
Z299587	1	11-Jun-2015 28-Jul-2016	Cam Valle,y Cameley, Somerset. Bob Medland CVL caught at roost	5 km 1y 1m 16d
Z299979	1	16-Jun-2016 29-Jul-2016	Cam Valley, Cameley, Somerset. Bob Medland CVL caught at roost	5 km 0y 1m 12d
Z299991	1	16-Jun-2017 14-Aug-2017	Cam Valley, Cameley, Somerset. Bob Medland CVL	5 km 1y 1m 27d

Species Ring No	Age Sex	Date ringed Date rec'd	Place ringed Place recovered Comments	Distance km Duration
Blackbird				
LJ03382	3J	28-Jul-2018 8-Nov-2018	CVL Elm Tree Fm. Litton, Som.	5 km 0y 3m 12d
Cetti's Warbler				
S600711	4	14-Apr-2017 14-May-2017	Littleton Brick Pits, S. Glos. CVL	32 km 0y 0m 30d
Sedge Warbler				
Y697718	4	21-Apr-2013 13-Apr-2017	CVL Longis Reserve, Alderney C.I	181 km 3y 11m 23d
Z602700	3J	20-Jun-2015 26-Jun-2016	Sewage Treatment Wks Swindon N.Wilts. R.G. CVL	62 km 0y 11m 29d
Z602700	3J	26-Jun-2015 28-May-2017 28-Jul-2017	Swindon STW N.Wilts. R.G. CVL CVL	62 km 1y 10m 30d 2y 0m 30d
Z677383	3	5-Jul-2015 30-Apr-2016	CVL Cardiff Wetland Reserve. Facey & Vafidis 8091	41 km 0y 7m 25d
Z234492	3	9-Aug-2015 27/098/2017	CVL Haxton Down, Wilts .N.Wilts. R.G.	63 km 2y 0m 18d
Z234942	3	9-Aug-2015 28-Aug-2017	CVL Haxton Down, Wilts .N.Wilts. R.G.	63 km 2y 0m 18d
Z843040	3	11-Aug-2015 29-Apr-2017	South Milton, Ley, Devon. R. Burridge CVL	145 km 1y 8m 18d
Z488477	4 F	23-Jun-2016 12-Aug-2017	Ystum Llyn Ystumllyn, Gwenedd Wales. K.H.Jones CVL	209 km 1y 0m 19d
AYC7240	3	27-Jul-2018 13-Aug-2018	CVL Tidmoor, The Fleet, Dorset. I. Dodd	79 km 0y 0m 17d
AYC7509	3	11-Aug-2018 21-Aug-2018	CVL Terril 110, Dourges, Pas De Calais France	404 km 0y 0m 10d
Reed Warbler				
E163928	3J	16-Jul-1987 22-May-1988	CVL Frampton on Severn. Glos	52 km 0y 10m 6d
E163915	3J	16-Jul-1987 14-May-1989	CVL Frampton on Severn. Glos	52 km 1y 9m 29d
F148405	4M	14-Apr-1989 16-Jul-1989	Frampton on Severn. Glos CVL	52 km 0y 2m 3d
H311577	3J	19-Jul-1992 10-May-1994	CVL Slimbridge, Glos.	50 km 1y 9m 21d

Species Ring No	Age Sex	Date ringed Date rec'd	Place ringed Place recovered Comments	Distance km Duration
Reed Warbler				
L056823	3J	2-Jul-2010 28-May-2016	CVL New Passage, Redwick, S.Glos. Ed Drewitt	28 km 5y 10m 27d
D966027	3	12-Aug-2014 6-Aug-2017	CVL Noyant, Soulaire et Bourg, Maine et Loire. France	455 km 2y 11m 25d
Z234259	1	4-Jul-2015 3-Jul-2016	CVL Swindon S.T.Works. North Wilts R.G.	62 km 0y 11m 30d
1Y21504	4	1-Sep-2015 29-Jul-2016	Salburua Vitoria-Gasteiz,Alava SPAIN CVL	941 km 0y 10m 27d
Z104102	4	15-May-2016 26-Jun-2016	Pitsford Res. Northamptonshire Northants R.G. CVL	164 km 0y 1m 11d
Z676797	1	18-Jun-2016 11-Aug-2016	CVL Icklesham East Sussex. Rye Bay R.G.	235 km 0y 1m 23d
Z677833	1	18-Jun-2016 6-Aug-2016	CVL Durlston Country Park, Swanage, Dorset	95 km 0y 1m 18d
Z677862	1	24-Jun-2016 24-Aug-2016	CVL Stortons Gravel Pit, Northampton, Northants R.G.	155 km 0y 2m 1d
S302017	4 M	3-Jul-2016 10-May-2018	CVL Littleton Brick Pits, S. Glos. Paul House	34 km 1y 10m 6d
Z677988	3J	13-Jul-2016 25-Aug-2017	CVL Icklesham, East Sussex,Rye Bay R.G.	235 km 1y 0m 22d
S302060	3J	17-Jul-2016 13-Aug-2016	CVL Squires Down, Dorset	44 km 0y 0m 27d
S302231	3J	18-Jul-2016 16-Aug-2016	CVL Terres Doiseaux, Braud-et St Louis Gironde France	686 km 0y 0m 29d
S302249	3J	23-Jul-2016 12-Aug-2016	CVL Squires Down Dorset	44 km 0y 0m 20d
S302321	3J	24-Jul-2016 5-Jul-2018	CVL Littleton Brick Pits, S. Glos. Paul House	34 km 1y 11m 11d
S302740	3J	30-Jul-2016 27-Aug-2016	CVL Walton in Gordano, N. Somerset Gordan Valley R.G.	20 km 0y 0m 28d
S304165	3J	26-Jun-2017 13-Jul-2017	CVL Tidmoor Fleet, Dorset, I.Dodd	81 km 0y 0m 17d
S909141	3	23-Jul-2017 11-Aug-2017	CVL Squires Down, Dorset	44 km 0y 0m 19d

Species Ring No	Age Sex	Date ringed Date rec'd	Place ringed Place recovered Comments	Distance km Duration
Reed Warbler				
S909050	3J	29-Jul-2017 3-Aug-2018	CVL Squires Down, Dorset	43 km 1y 0m 4d
S910136	3	30-Jul-2017 28-Aug-2018	CVL Ballard Down, Swanage, Dorset Stour R.G.	90 km 1y 0m 28d
Z352318	3	31-Jul-2017 30-Jul-2017	Squires Down, Dorset CVL	44 km 0y 11m 29d
S910025	3	6-Aug-2017 23-Aug-2017	CVL Squires Down, Dorset	44 km 0y 0m 17d
S931826	3J	24-Aug-2017 30-Sep-2017	Llangorse Lake, Powys, Wales Llangorse R.G. CVL	80 km 0y 1m 6d
S909938	3J	7-Sep-2017 22-Sep-2017	CVL Tidmoor Fleet, Dorset, I. Dodd	81 km 0y 0m 15d
AYC6096	1	13-Jun-2018 1-Aug-2018	CVL Squires Down, Dorset	43 km 0y 1m 18d
AYC6341	1	25-Jun-2018 4-Sep-2018	CVL Les Boulins,St.Julien Du-Yonne France	561 km 0y 2m 11d
AYC6855	3J	15-Jul-2018 5-Aug-2018	CVL Lychett Bay, Poole, Dorset. Stour R.G.	77 km 0y 0m 21d
AXB8042	3	15-Jul-2018 12-Sep-2018	Chelmarsh Reservoir, Bridgnorth, Shropshire CVL	131 km 0y 1m 28d
AYC7723	3J	27-Jul-2018 5-Aug-2018	CVL Squires Down, Dorset	43 km 0y 0m 9d
AYC7344	3J	2-Aug-2018 25-Aug-2018	CVL Barths de la Nivelle, Pyrenees-Atlantiques, France	887 km 0y 0m 23d
AYC7893	3J	7-Sep-2018 24-Sep-2018	CVL Marais de Pampin, La Rochelle, France	580 km 0y 0m 17d
1Y21504	4	1-Sep-2015 29-Jul-2016 16-Jun-2018	Salvurua, Vitoria-Gasteiz Alava Spain CVL CVL	306 km 2y 9m 15d 2y 9m 15d
S302212	3J	18-Jul-2016 23-Aug-2016	CVL Terres Doiseaux. Braud-et St Louis, Gironde France	686 km 0y 1m 5d
APB 6902	3J	1-Aug-2018 19-Aug-2018	Wintersett Resevoir, Wakefield, Yorkshire CVL	268 km 0y 0m 18d
Blackcap				
D463814	3	1-Sep-2014 17-Apr-2016	Durston Country Pk .Swanage, Dorset CVL	95 km 1y 7m 16d

Species Ring No	Age Sex	Date ringed Date rec'd	Place ringed Place recovered Comments	Distance km Duration
Blackcap				
Z676066	3 F	28-Sep-2015 17-Dec-2016	CVL Broad Oak, Devon	82 km 1y 2m 21d
S303469	3J	11-Jun-2017 17-Aug-2017	CVL Cam Valley, Cameley, Somerset. B. Medland	5 km 0y 2m 7d
Chiffchaff				
HXD394	2	29-Sep-2015 14-May-2017	CVL Calf of Man Observatory, Isle of Man	338 km 1y 7m 16d
HXD690	3J	17-Jul-2016 11/09/20`6	CVL Rye Water Nursery, Boys Hill, Dorset	50 km 0y 1m 25d
JRV593	3	21-Aug-2016 5-Nov-2016	Stanley Downton, STW Glos. CVL	52 km 0y 2m 16d
KDR408	3	4-Oct-2017 9-Oct-2017	CVL Ballard Down, Studland, Dorset	90 km 0y 0m 5d
Willow Warbler				
X28646	3	26-Sep-2015 14-Aug-2016	Charito-Silves, Faro. Portugal CVL	1638 km 0y 10m 18d
Bearded Tit				
Z676169	2	25-Oct-2015 8-Oct-2017	CVL Stodmarsh, Kent.	264 km 1y 11m 14d
Long-tailed Tit				
	3J	7-May-2017 3-Nov-2017	CVL Battlebury Bowl, Imber, West Wilts R.Group	37 km 0y 5m 28d
Chaffinch				
S304109	3J	18-Jun-2017 11-Aug-2017	CVL Cam Valley, Cameley Som. B. Medland	5 km 0y 1m 23d
Greenfinch				
TV82108	3	10-Dec-2014 27-Jun-2016	CVL Calne, Wilts.	44 km 1y 6m 18d
TV82283	3	11-Oct-2015 28-Aug-2016	CVL Winscombe, N. Som. Freshly dead	15 km 0y 10m 17d
TZ67758	1	20-May-2016 12-Mar-2017	CVL Chew Stoke, Somerset	4 km 0y 9m 22d
NY66567	1	9-May-2017 28-Oct-2017	CVL Gatehouse Lake Road. Portishead N. Som.	22 km 0y 5m 20d

Species Ring No	Age Sex	Date ringed Date rec'd	Place ringed Place recovered	Distance km Duration
Goldfinch				
S910912	5	24-Mar-2018 21-Apr-2018	CVL Lismore. Waterford, Ireland. Killed by Cat	377 km 0y 0m 28d
ADB1133	3J	6-Jul-2018 17-Nov-2018 16-Dec-2018	Calf of Man, Isle of Man CVL CVL	338 km 0y 4m 13d
L006018	3J	18-Oct-2009 19-Jun-2016	Cam Valle,y Cameley, Somerset. B. Medland CVL	5 km 6y 8m 1d
Reed Bunting				
S308918	3J	22-Jul-2016 7-Apr-2017	New Passage, Redwick S.Glos. E. Drewitt CVL	28 km 0y 8m 15d
Z838618	3J	5-Aug-2016 2-Oct-2016	Uskmouth, Newport Wales.Goldcliff R.G. CVL	34 km 0y 1m 27d

Catching effort at CVRS 2016 to 2018

The Tables 1, 2 and 3 give the monthly totals for three measures of catching effort at CVRS for the years covered by this report (2016 - 2018). These have been extracted from the daily log sheets that are kept at the ringing station and represent the catching effort using mist nets. The days when ringers have been present for other activities such as hut maintenance or other catching methods (e.g. using walk in traps), have been excluded from these totals. Roost netting effort is also excluded from this summary.

The figures for 'Operational Days' and 'Ringer Days' are available from 1966 and 'Net Foot Hours' from 1974. These were first published by Roy Smith in our 6th Report covering 1976–1978 pp 20-25. Rather than just using the raw annual totals he established a comparative system of indices (with base years being given a value of 100).

The annual index for operational days (ODI) uses the value of 103 from the base year of 1966.
The annual index for ringer days (RDI) uses the value of 370 from the base year of 1966.
The annual index for net foot hours (NFHI) uses the value of 201 from the base year of 1975.
(Note, the net foot hours are based on the standard full height net so that, for example, two sixty foot nets operated for 5 hours = 2 x 60 x 5 = 600 NFH).

Monthly tables for these three measures of catching effort can be found in previous CVRS reports that are kept at the ringing station.

Mist net (site CES C number 5) at Chew Valley Ringing Station

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Tota	Inde
2016	7	4	8	11	8	6	12	11	9	16	7	7	**106**	**103**
2017	6	7	7	11	7	6	11	9	10	13	12	7	**106**	**103**
2018	9	10	7	11	8	12	9	15	16	11	8	8	**124**	**120**

Table 1. Operational days per month at CVRS 2016 - 2018

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Tota	Inde
2016	37	13	38	50	44	41	96	47	43	70	45	40	**564**	**152**
2017	36	46	43	54	48	39	106	34	41	44	43	39	**573**	**155**
2018	41	55	27	57	56	79	72	65	69	34	28	24	**607**	**164**

Table 2. Ringer days per month at CVRS 2016 - 2018

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Tota	Inde
2016	9	3	12	9	23	23	43	32	13	24	11	8	**209**	**104**
2017	8	11	13	31	24	24	52	38	13	15	15	9	**253**	**126**
2018	9	21	6	23	28	28	36	38	34	12	7	2	**246**	**122**

Table 3. Net Foot Hours per month at CVRS 2016 - 2018 x 1,000

Catching Effort and Annual Totals at CVRS 1976 - 2018

Table 1 below provides the three measures of catching effort originally published by Roy Smith in our 6th CVRS Report 1976-1978 pp 20-25 plus the total of birds ringed per year. As our computer records are available from 1976 onwards it seemed that this was an appropriate year to start this table.
The annual ringing totals for new birds is plotted in Figure 1.
The usefulness of these three measures of catching effort is indicated by how well they correlate with the annual ringing totals. Figures 2a, 2b Operational days. Figures 3a, 3b Ringer days and Figures 4a, 4b Net Foot Hours.
Figures 5a, 5b and 5c are a practical example in using Net Foot Hours as a means of validating that the annual capture totals of Cetti's Warbler accurately represents their colonisation at CVL,

	1976	**1977**	**1978**	**1979**	**1980**	**1981**	**1982**	**1983**	**1984**	**1985**	**1986**
Operational days	149	182	166	89	91	80	63	88	84	83	77
Ringer days	400	641	581	292	316	232	138	246	236	279	215
Nfh x 1000	246	354	264	75	173	147	103	226	386	286	233
New Birds	3177	3334	3308	1528	1849	2161	1772	4402	2940	2834	3365
	1987	**1988**	**1989**	**1990**	**1991**	**1992**	**1993**	**1994**	**1995**	**1996**	**1997**
Operational days	89	90	97	125	124	119	146	171	161	117	120
Ringer days	316	290	218	535	513	502	592	563	514	352	429
Nfh x 1000	265	257	264	312	312	447	630	598	580	465	533
New Birds	4140	4199	4357	5272	4769	3877	5508	5539	7091	5161	4806
	1998	**1999**	**2000**	**2001**	**2002**	**2003**	**2004**	**2005**	**2006**	**2007**	**2008**
Operational days	98	141	113	95	112	124	96	104	93	93	84
Ringer days	316	472	408	325	414	510	376	390	362	387	382
Nfh x 1000	329	446	389	272	280	328	232	256	228	233	172
New Birds	3964	6212	5640	4606	3941	3848	3642	3911	4038	4106	3880
	2009	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**	**2016**	**2017**	**2018**	
Operational days	122	113	114	117	114	111	123	106	106	124	
Ringer days	550	663	709	650	633	611	647	564	573	607	
Nfh x 1000	273	297	373	258	285	286	323	209	253	246	
New Birds	4137	3804	5427	3047	3767	4829	4681	4101	3882	4518	

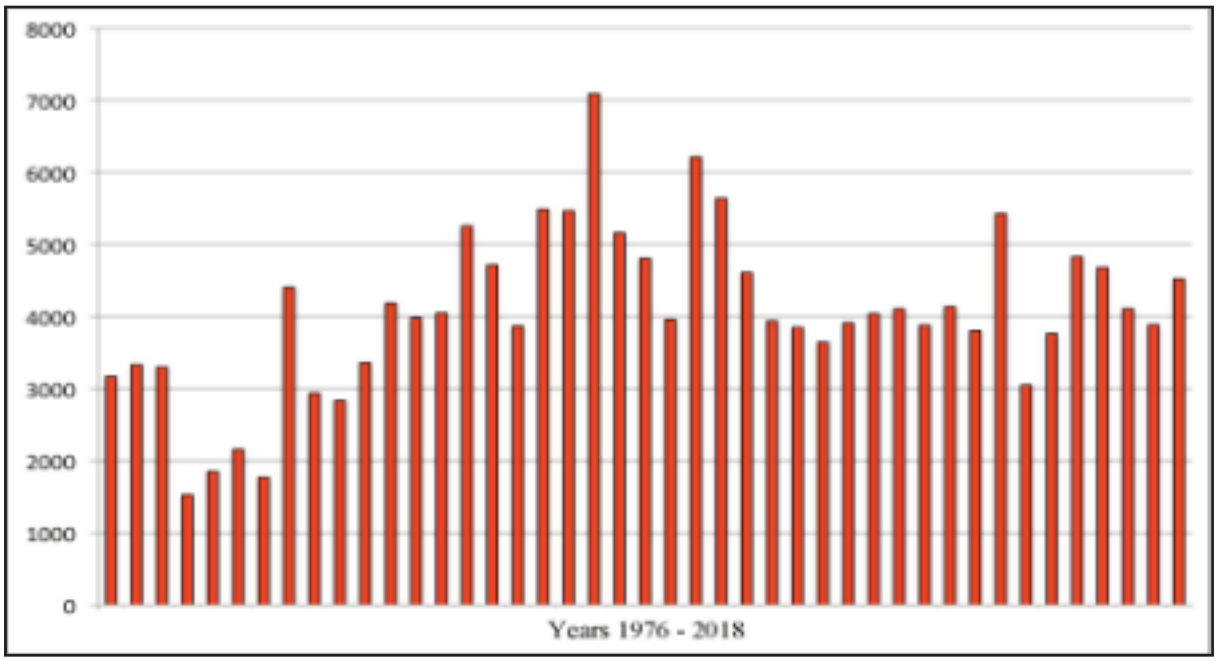


Figure 1. Ringing totals (new birds) 1976 - 2018

Correlation between Catching Effort and Annual Totals at CVRS 1976 - 2018

by

Mike Bailey

The correlation between the number of birds ringed with Operational Days, Ringer Days and Net Foot Hours was tested by calculating the Spearman rank correlation coefficient (r_s) for the three pairs of datasets. The significance of the correlation is indicated by the values of r_s as follows:

0 indicates no linear relationship.
1.0 or -1.0 indicates a perfect linear relationship:
Values between 0 and 0.19 a very weak relationship
Values between 0.2 and 0.39 indicate a weak relationship.
Values between 0.4 and 0.69 indicate a moderate relationship.
Values between 0.7 and 0.79 indicate a strong relationship.
Values between 0.8 and 1.0 indicate a very strong relationship.

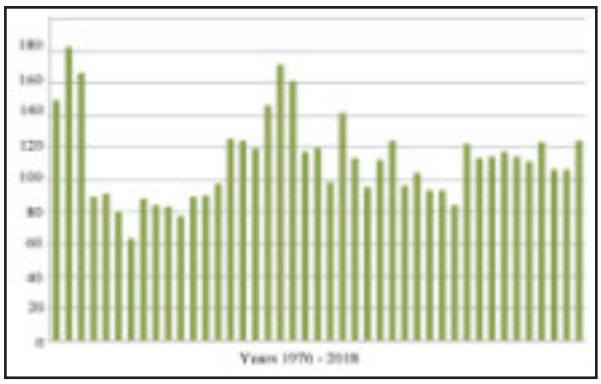


Figure 2a. Operational Days 1976 - 2018

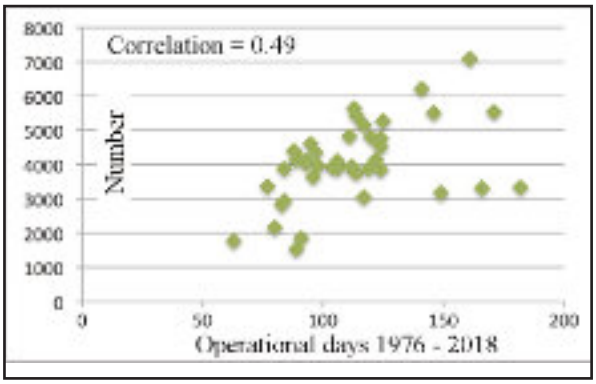


Figure 2b. Correlation between the number of birds ringed and Operational Days

In terms of operational days (Figure 2a) the late-1970s and mid-1990s indicate peaks of activity. The latest 10 years are perhaps notable for their consistency and, checking through the log books 2009 - 2018, most of the ringing has taken place at weekends.
Inspection of the graphs in Figure 1 and Figure 2a for Operational days shows a moderate correlation in relation to the annual totals of $r_s = 0.49$. That it is not higher is mainly due to the low number of birds caught in the late 1970s despite the high number of days in which the ringers were present.

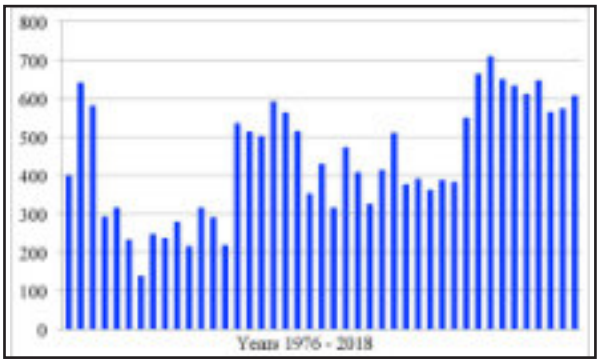


Figure 3a. Ringer Days 1976 - 2018

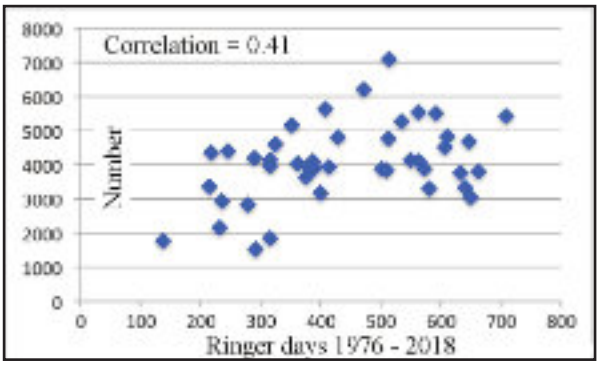


Figure 3b. Correlation between the number of birds ringed and Ringer Days

Looking at Ringer Days we again see the mid-1970s and mid-1990s with larger number of ringers attending. However, most striking is the increase in the number of ringers present from 2008 - 2018 although this has not resulted in more netting being deployed or more birds being ringed!
A coefficient of $r_s = 0.41$ is at the lower end of the scale for a 'moderate' and barely exceeds a 'weak' correlation.

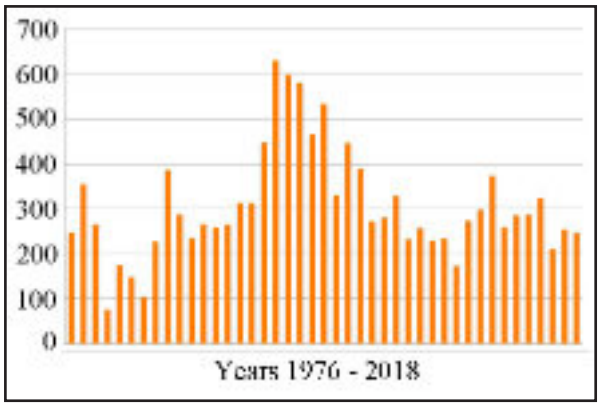


Figure 4a. Net foot hours x 1,000 1976 - 2018

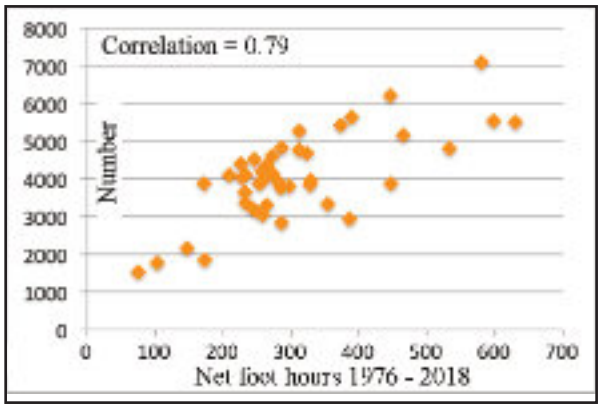


Figure 4b. Correlation between net foot hours (x1000) and the number of new birds ringed from 1976 to 2018.

In Figure 4a the 1990s stand out as a period of much greater ringing activity in the use of mist nets. This period co-incided with annual vists in the summer by the West Wilts Ringing Group and several very active CVRS members. The similarity between the shape of the graph in Figure 1 giving the annual totals and Figure 4a (the net foot hours) is noticeable and unsurprisingly the correlation is on the cusp of 'strong' to 'very strong'.

The graphs, Figures 5a, 5b and 5c, give a practical example for relating a species total, in this case Cetti's Warbler, and catching effort using Net Foot Hours. Figure 5a. plots the annual number of Cetti's Warbler caught each year in the nature reserve at Chew Valley Lake from 1992 to 2017 (both ringed and retrapped). Figure 5b plots the number of birds caught each year per 100,000 net foot hours and Figure 5c is a scattergram plotting the raw data against the catching effort. The r_s value of 0.918 is very high. This indicates a very strong relationship and gives confidence that the raw data is an accurate reflection of the colonization of the nature reserve at CVL by Cetti's Warblers.

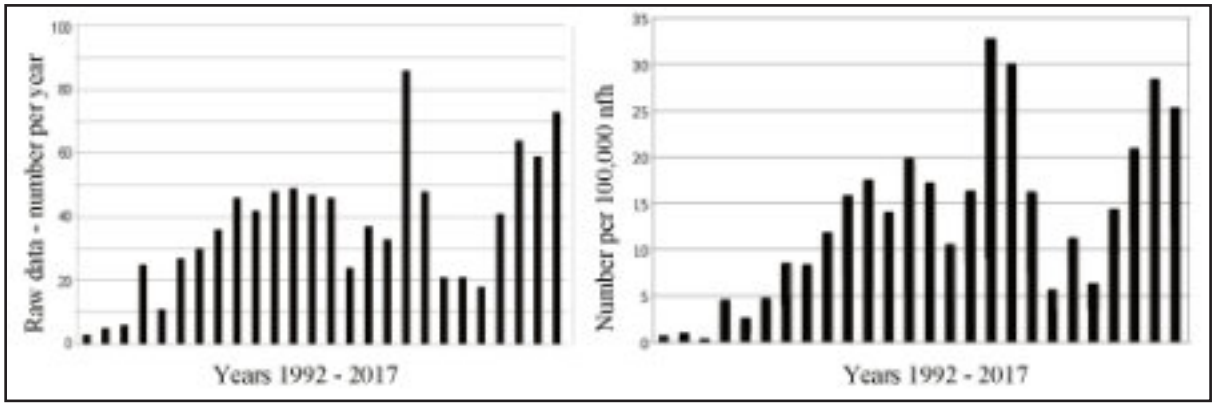


Figure 5a. (Left) Annual totals of Cetti's Warbler recorded at CVRS 1992 - 2017.
Figure 5b. (Right) Number of Cetti's Warbler recorded at CVRS per 100,000 Net Foot Hours 1992 - 2017

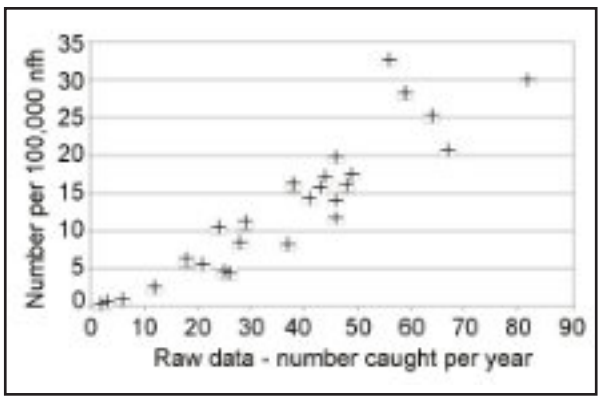


Figure 5c. Correlation between the number of Cetti's Warbler known to be present each year in the nature reserve at Chew Valley Lake from 1992 to 2017 (ringed and retrapped) and the number of birds caught in relation to catching effort per 100,000 net foot hours. Spearman Rank Correlation Coefficent r_s = 0.918

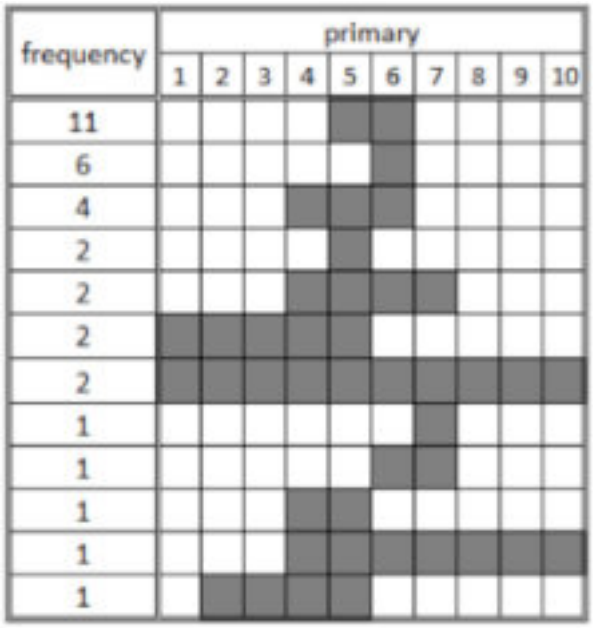
Inclusion of primaries in post-juvenile moult of Goldfinch *Carduelis carduelis*

by
Mark Dadds

Within the UK the post-juvenile moult of Goldfinches is partial, but a small proportion of birds moult one to a few of the middle primaries (an eccentric moult), and some may even have a full moult. Ginn & Melville (1983) state that 3-4% of juveniles in the UK undergo a complete post-juvenile moult, but it is not clear how and from where this % was derived. A more sceptical Alker (2014) considers it likely to be an insignificant number. The extent and frequency of post-juvenile moults involving primaries is greater in southerly populations.

Between October 2016 and the end of 2018, 1289 Goldfinches were ringed in a garden located just to the north of the Bristol city boundary. Of these 1038 were aged as juveniles (age codes 1J, 3J, 3 & 5) and of these, 58 (5.6% of all juveniles) had moulted one or more primaries. 34 of these juveniles were in active post-juvenile moult and in the process of moulting one or more primaries and 24 birds had completed their post-juvenile moult and had replaced one or more primaries.

For these 58 primary moulting/moulted juvenile birds, Figure 1 shows the frequency of the position of new primaries involved for those juveniles which were still actively moulting, and Figure 2 shows the same for those juveniles which had finished their post-juvenile moult. The dark squares identify the new feathers. As is customary in moult studies the primaries are numbered descendantly, ie from mid wing to outermost feather. Seven of these birds were retrapped so for these only the most recent capture while still aged as a juvenile was included.



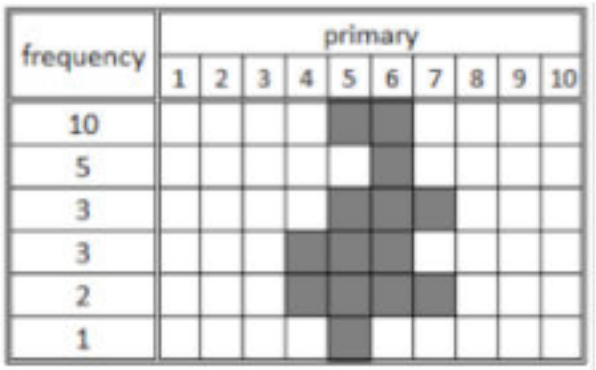


Figure 2. (above): Frequency of moulted primary patterns found for Goldfinches that had completed post-juvenile moult.

Figure 1. (left): Frequency of moulted primary patterns found for Goldfinches in post-juvenile moult.

Figures 1 and 2 show that P4 to P7 were the primaries most frequently involved in an eccentric moult, and for the birds that had completed post-juvenile moult these were the only new primaries found. Jenni & Winkler states moulted primaries can also be found at positions P2, P3 and P8 among Goldfinches that had completed their post-juvenile moult.

The greater spread of primaries being renewed amongst the actively moulting group was accounted for by just six birds. Of these, four exhibited moults that looked similar to adult full moults, i.e. a descendant moult had started at P1 and subsequently an ascendant moult from S1. Their secondary and primary moult scores were:
554/001355/555555554, 555/345555/5555555555, 010/000001/5554300000 and 015/000001/5554300000.
These may have been birds that were destined to complete a full moult. No such moults were found in the completed post-juvenile moult group as they would be indistinguishable from adults unless they had previously been caught when recognisable as juveniles. The fifth bird was undergoing an extensive eccentric primary moult, from P4 to the outermost primary (000/000000/0005555545). The sixth bird was moulting divergently and this is discussed later.

Examples of eccentric primary moult in post-juvenile moulting birds

Figure 3 shows a typical example of a juvenile Goldfinch eccentrically moulting. It is clearly a young bird with two middle primaries growing. By comparison the rest of the primaries have a less intense yellow, are a duller black, and are worn at the tips. The other wing will have the same or a very similar moult score.

Figure 3. Goldfinch in post-juvenile moult with a primary moult score of 0000430000

Figures 4 and 5 both show birds with P6 growing; this feather is still fully in pin in the former but close to full-grown in the latter with only a small amount of sheath at its base. At first glance neither of these feathers stands out in the way the growing primaries do in Figure 3, but the need to look more closely is prompted by the fact that both birds appear to only have three long outer primaries. In a non-moulting bird the outer four large primaries (P6-P9) are clearly longer than all the others (refer to Figures 6 and 8). The bird in Figure 5 has already renewed P5.

Figure 4. Goldfinch in post-juvenile moult with a primary moult scores of 0000010000

Figure 5. Goldfinch in post-juvenile moult with a primary moult score of 0000540000

Example of eccentric primary moult in a bird that had completed its post-juvenile moult

Figure 6 shows a late autumn bird that was not in moult. There were no immediately obvious aging features other than all the primaries were relatively worn, suggesting a juvenile, apart from P5 which was in mint condition. It was exactly the same on the other wing, thus confirming it was an age 3. As juvenile feathers wear faster than renewed feathers, the contrast in wear between the old and new can be much more pronounced later on compared to when the post-juvenile primaries first appear.

Figure 6: Goldfinch that has completed the post-juvenile moult with a primary moult score of 0000500000

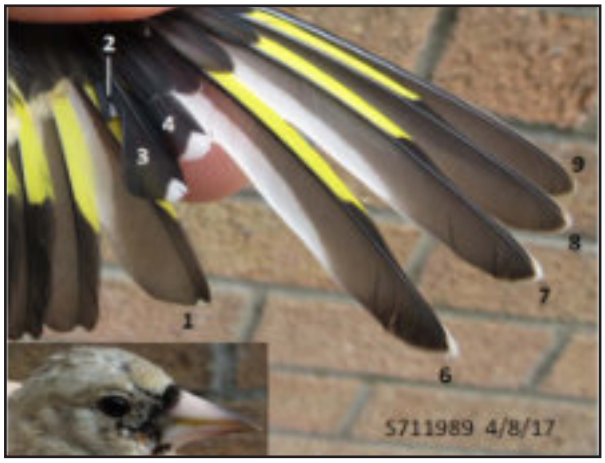


Figure 7: A divergently post-juvenile moulting Goldfinch with a primary moult score of 0233100000

A divergent primary post-juvenile moult

A divergent moult is where the first primary to be moulted is one of the middle ones and from there moult then proceeds in both directions. It is not listed as a moult option for either juvenile or adult Goldfinches in any of the standard reference books. Kiat (2017) describes divergent moult among Western Palearctic passerines as rare, finding it relatively more common in juveniles than adults. In his data for Goldfinches there was one of 32 juveniles and none of 74 adults that showed evidence of a divergent moult.

The juvenile shown in Figure 7 had started moulting at P3, but then proceeded to moult in both directions from that starting point. P5 is missing. The moult score is 0233100000. For the left wing it was 2343100000. Once P1 has been replaced and is fully grown it would no longer be recognisable as a divergent moult.

Figure 8: A retrapped Goldfinch known to be a first year bird (age code 5) but appearing to have undergone a full post-juvenile moult.

A full post-juvenile moult?

All the ageing criteria for the bird shown in Figure 8 pointed to this being an adult, including the absence of any significant wear to the primaries. However, this bird was a retrap and was first caught on 11 June 2018 when it was an age 3J with a moult code of P. If the remiges were still juvenile then they would be expected to show a considerable amount of wear by February, especially as the first capture date shows it was from an early rather than a late brood. So a good candidate for a full post-juvenile moult.

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2012-2018 statistics for box nesting Blue Tits *Cyanistes caeruleus* in the nature reserve area at Chew Valley Lake.

by
Mark Dadds

The nest boxes within the reserve area at CVL have been monitored as part of the BTO Nest Record Scheme (NRS) since 2012. The most numerous box nesting species is Blue Tit. The nesting statistics for 2012-2015 were reported in the CVRS 18th Report and are repeated here to facilitate comparisons with the additional years of 2016-2018. The timing and progression of egg laying by Blue Tits at CVL for 2012-2018 is shown in Figure 1. As discussed in the 18th CVRS Report, the two breeding seasons with the worst average fledging rates (4 per nest) in the period 2012-15 were 2012 and 2015. They were also characterised by having high nest counts, high annual egg totals, long durations of egg laying (Table 1) and higher numbers of failed nests (Table 2) resulting in strikingly different looking graphs (Figure 1). It was suggested that the inflated nest and egg counts in these years was due to the high numbers of failed nests which had resulted in more pairs making repeat nesting attempts.

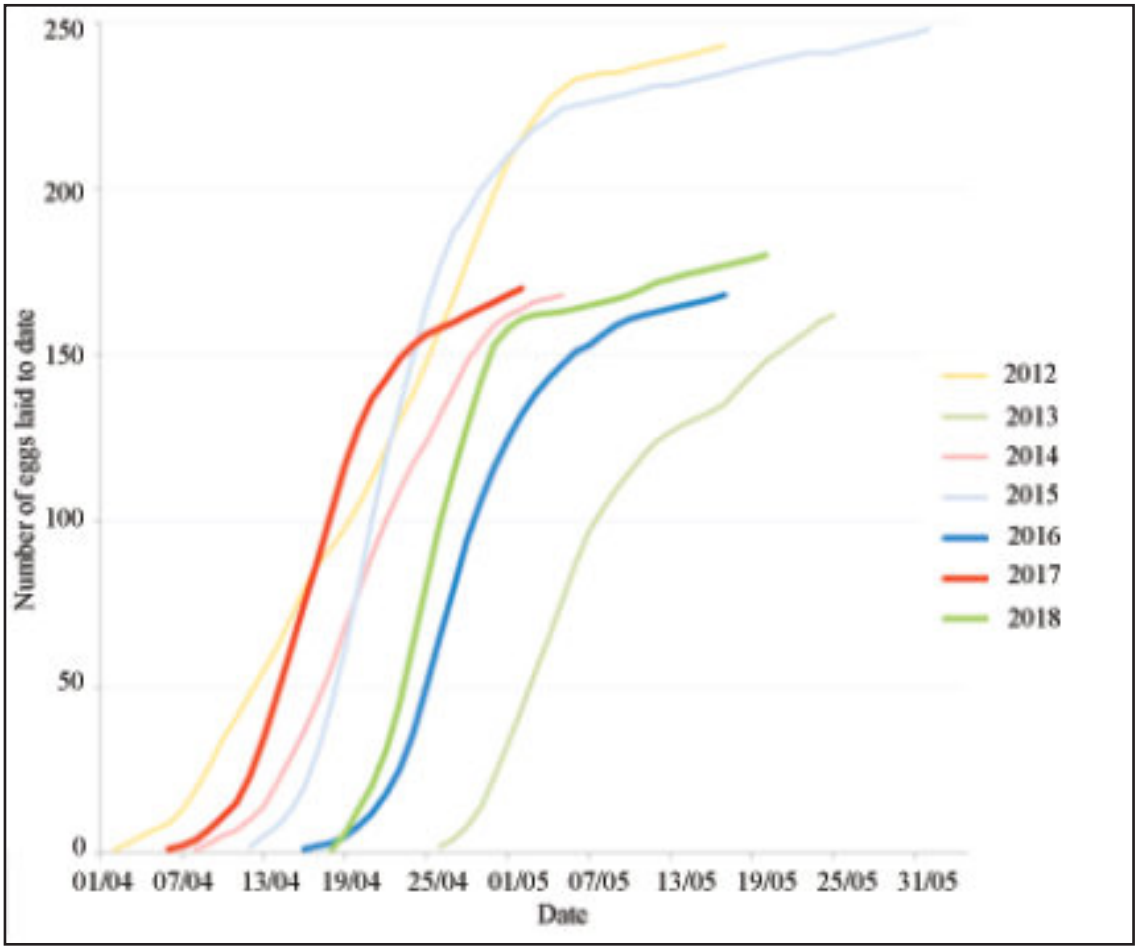


Figure 1. Graph showing the commencement and progression of egg laying by box nesting Blue Tits in the CVL nature reserve 2012-2018.

Year	Number of nests	First egg date	Duration of egg laying	Total for year			Average per nest		
				eggs	pulli	fledged	eggs	pulli	fledged
2012	32	02/04/2012	45	247	158	127	7.7	4.9	4
2013	23	26/04/2013	29	181	121	94	7.9	5.3	4.1
2014	20	08/04/2014	27	168	134	109	8.4	6.7	5.5
2015	30	12/04/2015	50	251	160	121	8.4	5.3	4
2016	23	16/04/2016	31	168	118	70	7.3	5.1	3
2017	20	06/04/2017	26	170	150	127	8.5	7.5	6.4
2018	21	18/04/2018	32	180	164	138	8.6	7.8	6.6
Average	24.1	13/04	34.3	195	143.57	112.29	8.1	6.1	4.8

Table 1. Statisticss for box nesting Blue Tits at CVL nature reserve 2012-2018.

Year	Number of nests	Nests where no eggs hatched		Nests where no pulli fledged	
		Number	%	Number	%
2012	32	6	18.8	10	31.3
2013	23	3	13	4	17.4
2014	20	1	4.8	2	9.5
2015	30	5	16.7	8	26.7
2016	23	3	13	6	26.1
2017	20	1	5	2	10
2018	21	1	4.8	2	9.5

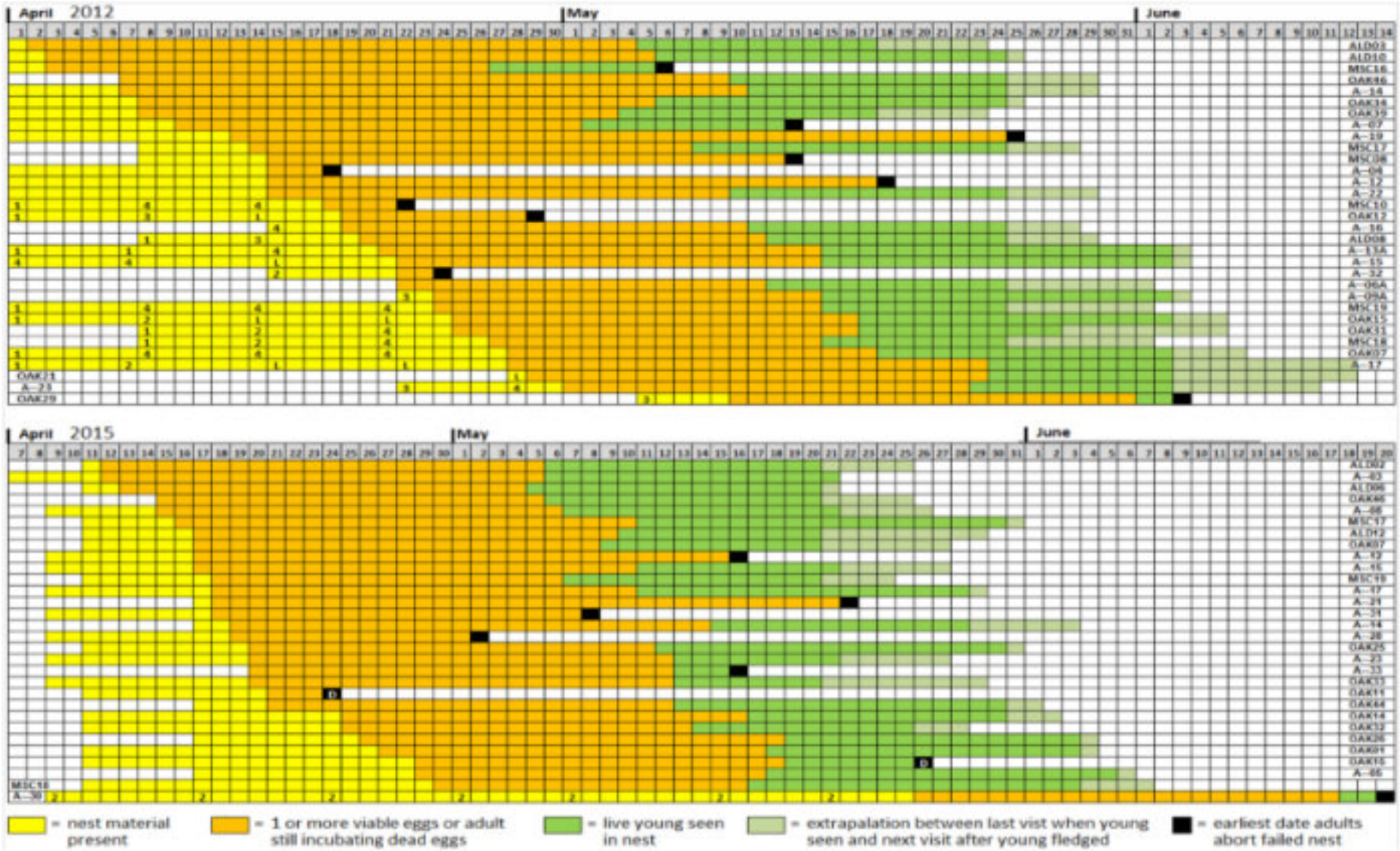
Table 2. Number of nest failures at egg and pullus stage for box nesting Blue Tits at CVL nature reserve 2012-2018.

However, of the 3 new years since, 2016 shows an even worse fledging rate (75% of 2012 & 15). It also had a relatively high nest failure rate, but did not have high nest or egg counts, suggesting that repeat nesting attempts were not made this year, and resulting in a graph appearance more similar to the higher productivity years. The years where it had been assumed repeat nesting attempts had been made (2012 & 15) were analysed in much greater detail by using the NRS data to plot the dates when each individual box was actively being used (Figure 2). Of the 10 nest failures that occurred in 2012 (Figure 2), the 5 latest ones all occurred after egg laying had started in the final box to be used that year (OAK29). The 6th latest failure (MISC16) had an adult and live young in the nest on 5 May when the final box to be used (OAK29) contained a nest that had been recently started and was already three quarters built, so must have been being built by a different pair to that in MISC16. Of the remaining 4 failures, there are nests shown in Figure 2 that could potentially be repeat nesting attempts. There are either other nests for which building commenced after the failure dates, or already partially built nests for which no building activity had taken place for at least a couple of weeks so presumably no longer occupied by the original nest instigators.

In 2015 the 7 (of 8) latest nests to fail all did so on dates after egg laying had commenced in all but 1 nest (A—30), so at most only 1 of these 7 could have attempted a repeat nesting in the CVL nest boxes. The 8th and earliest nest to fail (OAK11) was one of 2 nests that when found to have failed contained the corpse of an adult female with dead eggs or young. These are marked with Ds in Figure 2.

This shows that the majority of nest failures in these 2 years did not result in the affected blue tit pairs making a repeat nesting attempt in another of the CVL nest boxes. The high nest counts recorded were actually the result of well above average numbers of pairs of blue tits using the CVL nest boxes; at least 28 of 32 in 2012 and at least 29 of 30 in 2015. Over this 7 year period the highest box occupancy recorded has been about 150% of the lowest. The most recent 2 years (2017 & 18) experienced the highest fledging rates recorded at CVL so far. The number of boxes occupied was the lowest recorded (2017) and 1 greater than the lowest (2018), but the 2017 total number of fledglings matched the previous highest, and 2018 exceeded it.

Figure 2 (on following page): Diagram showing the timing of activities in the individual nest boxes occupied by blue tits at CVL nature reserve in 2012 and 2015, derived from the data collected for NRS. Nest box identifiers are located at the left or right edges. The black cells used to denote the earliest date adults abort a failed nest are set to the day after the last date evidence was seen to show the nest was still viable. Where characters appear in the yellow cells used to denote only nesting material is present, they are measures of how far nest building has reached. 1 to 4 denote how many quarters built the main nest structure is, and L denotes the nest is now lined (so therefore complete).


April 2012
May
June
April 2015
May
June
= nest material present
= 1 or more viable eggs or adult still incubating dead eggs
= live young seen in nest
= extrapalation between last vist when young seen and next visit after young fledged
= earliest date adults abort failed nest

Using the blue wing coverts to age Jay *Garrulus glandarius*

by
Mark Dadds

The main aging criteria for juvenile jays are a moult limit in the greater coverts (GCs) or alula, an outer GC recognisable as juvenile by having less than 9 black bars, and/or an irregularity in the barring of the (never moulted) primary coverts (PCs) which is repeated identically on all feathers and occurs the same distance from the tip. Irregular or 'faulty' barring is most noticeable in the black bars which may be faded, speckled, breaking up and/or bleeding into the adjacent blue bars. For adults, the aging criteria are an absence of a moult limit within the GCs and alula, an outer GC with more than 8 black bars and an irregularity in the barring of a PC feather which is not repeated on all the other PC feathers. Problems arise with birds that have no GCs or alula moult limit, an outer GC with more than 8 black bars and no irregularities in the bars on the PCs, as these could be adults or juveniles that have moulted the alula and all GCs. These can possibly be separated by comparing the spacing between the black bars on the PCs and GCs. For juveniles the black bars on the PCs are further apart than they are on the GCs, whereas for adults these distances are approximately the same, but making this comparison does require some experience (Jenni & Winkler 1994). Demongin (2016) cautions that for adults the gaps between the black bars on the PCs can look broad so be potentially misleading.

There follows some examples of jays that illustrate the straightforward aging criteria. A more difficult to age bird is discussed in more detail, and a possible way of simplifying the resolution of problematical birds is suggested. All the jays featured were trapped at Litttleton Brick Pits.

Age code 3

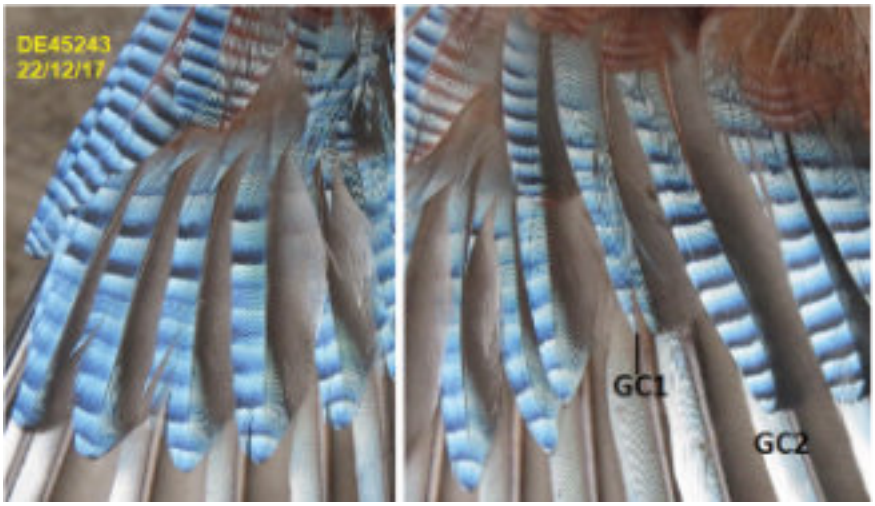


Figure 1 shows two views of the left wing. Nearly all the bars on the primary coverts are faulty so it is the alignment of the 2 non-faulty solidly black bars aligned across the feather tract that is the stand out feature. It is difficult to discern how many black bars are on the outer greater covert (GC1), but its faulty bars more or less match those on the PC in contrast to the near intact bars on the rest of the GCs, as well as its shorter length, so it is the only OGC.

For the juvenile in Figure 2 there is an obvious fault bar across the PC. The outermost greater covert (GC1) has 8 black bars so is also a juvenile feather. The irregularities of the primary coverts more or less continue across GC1 and GC2, but not the rest of the GCs which are also much blacker on the inner webs than the first 2 GCs. OGC count is 2.

Figure 2.

Age code 5

Initial examination of the right wing of the bird shown in Figure 3 did not reveal any obvious irregularities in the black and blue barring. Difficulty was encountered trying to work out which was the outermost greater covert so that the number of black bars could be counted, until it was realised that the end of this feather had snapped off. The visible outer greater covert in the picture is repeated in the inset. The bars on the inner primary covert beneath line up with those on the outer greater covert on top, making the end of one and the start of the other difficult to see. The greater coverts, however, do show an obvious moult limit. There are 4 OGC. The new post juvenile GCs are darker black than the OGC and are markedly longer (which is not always the case).

Figure 3.

Where difficulties arise trying to identify the outer GC (normally probably unlikely) there is a difference between GCs and the inner PCs whereby the blue bars on the tips of the PCs cross both webs of the feather, whereas on the GCs there is no barring at all on any of the inner web.

Figure 4.

Examination of the left wing (Figure 4) showed that there was actually an irregularity in the barring across all the PCs, but it only became apparent when the alula feathers were moved out of the way. In the picture the alula has been pushed to the right. In the picture of the right wing (Figure 3) the alula is in its normal position and nearly all the irregularity is hidden. On the left wing the outer GC was intact and showed 6 complete bars plus a couple of very short bars, so no more than 8.

Age code 6

Figure 5 shows a number of faulty bars in the PCs, but none of these irregularities are aligned across all the feathers in the PC tract with the same fault in the same position on each feather. This means the PC feathers must have been grown in succession rather than all grown at the same time so must have been produced in a post breeding moult (PCs are retained in the PJ moult). As this is a spring bird the age must be 6.

Figure 5.

Problem birds

The bird in Figure 6 was initially aged as 4 due to the absence of irregularities in the primary coverts, and the outer greater covert showing 10 black bars and no moult limits. However, subsequent inspection of the photographs taken at the time compared with pictures in Jenni & Winkler suggested that the bird might have a moult limit in the alula so could possibly be age 5.

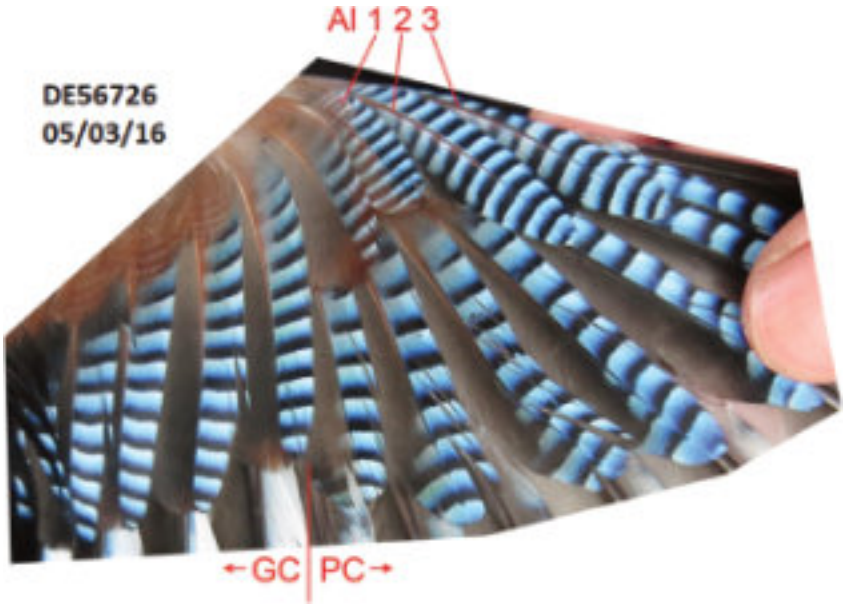


Figure 6.

An alula moult limit is recognised the same way as is the difference between juvenile PC and new GC as described above, i.e. the new feathers have the black bars closer together than the juvenile feathers. Figure 6 seems to show closer black barring for Al 1 (new?) compared to Al 2 & Al 3 (juv?), and is not dissimilar to the juvenile with an alula moult limit shown in Jenni & Winkler Fig 464.

There also appeared to be a difference in the spacing of the black bars of the greater coverts (wider) and the primary coverts (narrower) which implies a juvenile that had moulted all its GC. However, these bar dimensions are somewhat subjective and counter-arguments were made that the GC/PC differences could be an optical illusion as a result of the PC blue bars having a more square shape compared to the more rectangular GC blue bars. It was also suggested that there may be faults in the tips of individual PCs that are not matched by the adjacent PCs which is an adult age trait.

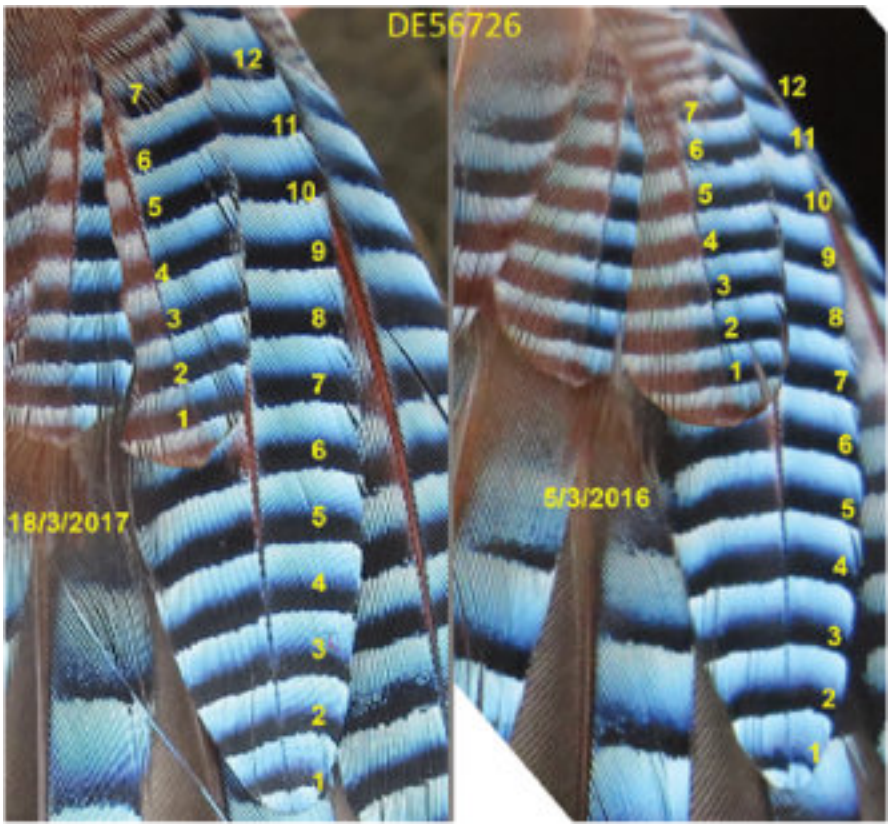


Figure 7.

Almost exactly a year later the bird was retrapped. The photographs from the original capture and the recapture were manipulated in Photoshop (Figure 7) in order to reorient Al1 so that the black bars on the outer web are alongside those on Al2. The black bars have been numbered from the bottom up, 1-7 for Al1 and 1-12 for Al2. Bar 1 on Al1 has been aligned with bar 7 on Al2. Clearly the alignment of the 7 bars on Al1 with the 6 (7-12) on Al2 are more or less identical for the 2 images, thus proving that there was not a moult limit in the alula when it was first caught.

Based solely on the appearance of the bird on the days of capture, the age is 4 on both occasions, but by taking into account the capture

a year previously the second capture was obviously of an adult. The capture on the first date could possibly have been of a second calendar year bird that had moulted all GC and alula feathers as part of its post juvenile moult.

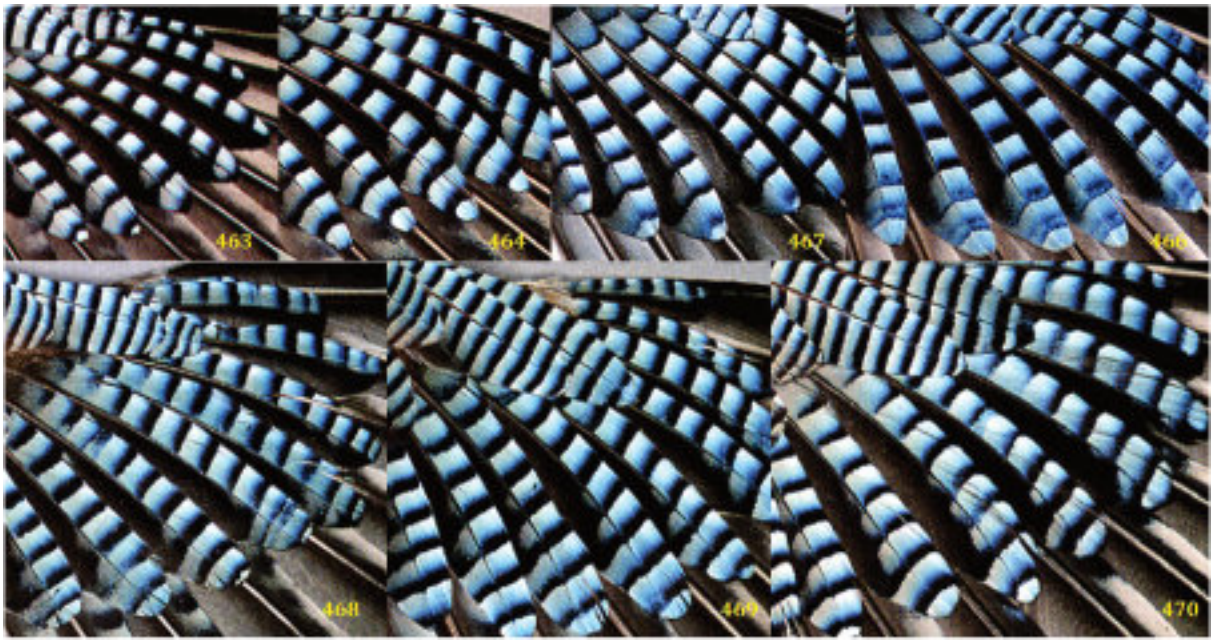


Figure 8. The primary coverts of the Jays illustrated in Jenni and Winkler.
Top row juvenile.
Bottom row adult.
The numbers refer to the figure numbers in Jenni and Winkler

The close scrutiny of these pictures and Jenni & Winkler resulted in the observation of a possible method for establishing if PCs are juvenile or adult type feathers. As mentioned above, when comparing the bar spacing on PCs and GCs, the blue bars on the PCs have a more square shape compared to the GCs. If the sides of these squares that are parallel to the feather shaft are referred to as the height, then most of the blue squares on juvenile PCs appear to have the height slightly greater or the same as the width, whereas for adult type PCs most of the square widths are greater than the heights. This seems to hold true for the PCs shown in Jenni & Winkler (Figure 8), but would need the examination of a much larger sample in order to gauge if this is true in every case or can only be used as a supporting ageing criterion.

Figure 9 shows another bird that is difficult to age. The blue squares on the PC are wider than high so maybe an age 6. For the same reason the problem bird discussed above (Figure 6) could have been an age 6 when first caught.

Figure 9.

References

Demongin, L. (2016) *Identification Guide to Birds in the Hand*. Beauregard-Vendon.

Jenni, L. & Winkler, R. (1994) *Moult and Ageing of European Passerines*. London: Academic Press.

Winter site fidelity of Chiffchaff *Phylloscopus collybita* at Chew Valley Ringing Station

by
Patrick Hancock

This report explores the Chew Valley Ringing Station (CVRS) ringing dataset in an attempt to establish how the Chiffchaff *Phylloscopus collybita* uses the environs of the Ringing Station during the winter period. Do Chiffchaff show winter site fidelity and indeed do they establish winter territories?

The question was sparked during a ringing session at Chew Stoke Sewage Treatment Works (STW), a site owned and managed by Wessex Water. The STW lies just to the north of Chew Valley Lake, a man-made reservoir owned and managed by Bristol Water. The CVRS ringing sites are circa 4km to the south, at the southern shores of the lake. During the ringing session at the STW, Chiffchaff HJH407, ringed at CVRS, was recaptured.

Introduction

It is well known that numbers of Chiffchaff that winter in the UK have increased considerably since the 1970s (Conway 2011). Evidence from ringing suggests these wintering birds are from many parts of the Palearctic region, with only a small proportion of British or Irish origin (Wernham *et al* 2002).

Wintering birds usually first appear in late October or November, and many remain site faithful through the winter, and even between winters. Departure dates have been difficult to determine. Last dates of recapture of wintering individuals in Hertfordshire were mid-March to early April (Wernham *et al* 2002).

From studies of wintering Chiffchaff and passerine species on the Iberian Peninsula, wintering birds can adopt two main strategies, residency and transiency (Belda *et al.* 2007, Catry *et al.* 2003, Cuadrado 1992, Senar *et al*. 1992). Availability and type of food determines which strategy is used (Senar & Borras 2004). Wintering Chiffchaff generally have a transient, nomadic behaviour, although some individuals can become temporarily sedentary. In Portugal, most individuals caught were transients. Those that were temporarily sedentary were shown to have small linear home ranges (circa 200m) (Catry *et al.* 2003). A small percentage of Chiffchaff show winter site fidelity (Herrera & Rodriguez 1979).

Methods

CVRS is located at the southern shore of Chew Valley Lake, south of Bristol. Ringing sites are located on the edge of reedbeds dominated by *Phragmites australis*, with willow *Salix* sp scrub, bramble *Rubus fruticosus* agg / hawthorn *Crataegus monogyna* scrub and hedged 'garden' forming the main habitat types.

For this report, data investigated comes from the CVRS digitised dataset covering the period March 1976 to March 2019. For the purposes of this report, winter is defined as the period November to February inclusive. The majority of Chiffchaff were caught using mist nets. The others were caught using a Heligoland trap. Ringing effort was not constant through each winter and between winters due to various factors such as weather conditions and accessibility of net lanes. Most ringing was carried out over the weekend. Tape lures were used on occasions outside of the breeding season, though no standardised method was used.

Within the CVRS dataset, no distinction has been made between sub-species. Recently, the sub-species *P. c. tristis* has been more confidently identified as occurring rarely at CVRS, and a collaborative project with Aberdeen University testing feather samples using MtDNA analysis has shown sub-species *P. c. abietinus* has occurred on two occasions. However, anecdotally, no recapture of these sub-species has been recorded.

For the purposes of this report, the following definitions of the varying degrees in winter site fidelity are used:

- **Winter Resident** – an individual ringed during the winter period and recaptured on multiple occasions and across that same winter period. The individual is resident within the immediate CVRS recording area.
- **Temporarily sedentary** – an individual ringed during the winter period and recaptured on more than one occasion within a sufficiently short period. This period is assumed to be in the order of one recapture event over consecutive ringing sessions. The individual is temporarily sedentary within the CVRS recording area.
- **Transient** – an individual ringed during the winter period and recaptured on at least one occasion during the same winter period. CVRS lies within a limited geographical range in which the individual is nomadic. It is not sedentary within the ringing area of CVRS.

Results

For the period, 266 Chiffchaff were ringed during the winter months. On a monthly basis, 109 were ringed in November, 70 in December, 58 in January and 29 in February (see Figure 1). There were 73 recapture events of 63 individuals for Chiffchaff ringed in the winter months (see Figure 2). Note, there were five individuals recaptured across more than a single month within the same winter period, and one (HJH407) across three months – one of which was in a different winter to that in which ringed. These recapture events are included in the chart, hence the chart appearing to show 70 individuals.

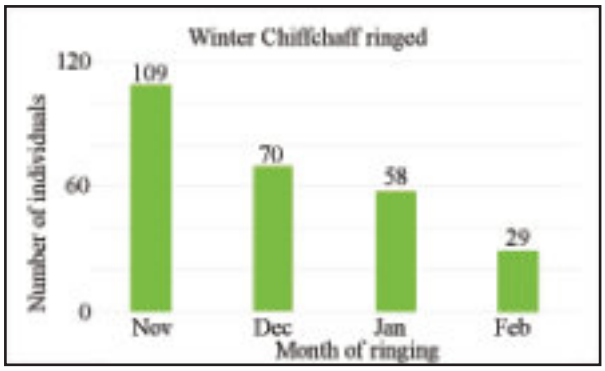


Figure 1. The number of Chiffchaff ringed during the winter for the period March 1976 to March 2019.

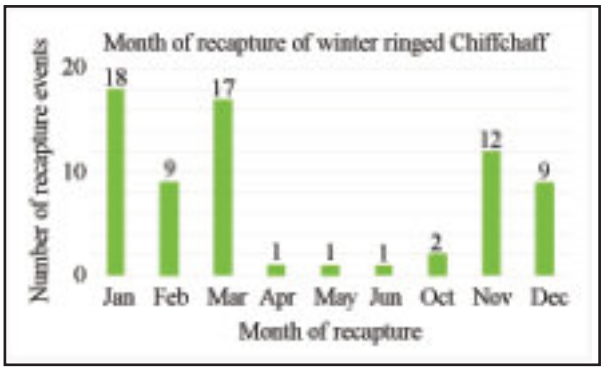


Figure 2. The number of recapture events of Chiffchaff that were ringed during the winter for the period March 1976 to March 2019.

Same winter recaptures

There were 42 occurrences of 37 individual winter ringed Chiffchaff being recaptured within the same winter. There are two individuals recaptured twice across two different months and three individuals recaptured twice within the same month. Data is shown in Figure 3, Figure 4 and Table 1. The two individuals recaptured twice across two different months are included in both monthly totals in Figure 3. Although not included within the definition of the winter period for ringing, March has been included in Figure 3 and Figure 4 – see Discussion below.

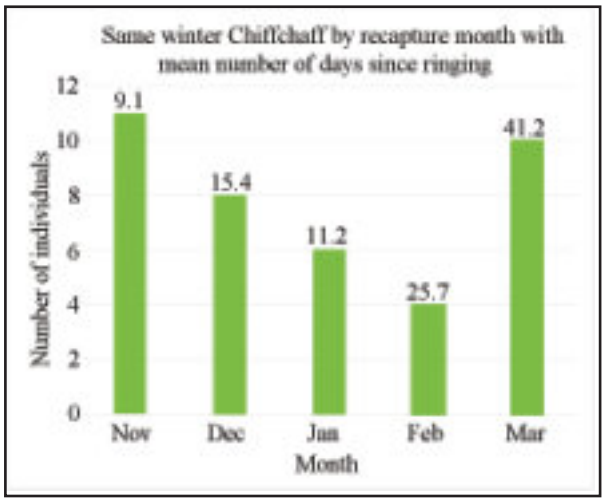


Figure 3. The number of individual Chiffchaff ringed by month. The mean number of days between ringing and recapture is also shown for the month of recapture.

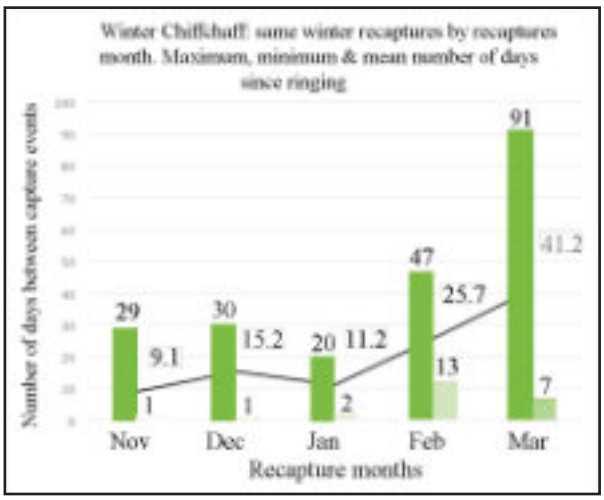


Figure 4. The number of days between ringing and recapture for Chiffchaff ringed during the winter and recaptured during the same winter. The mean number of days between ringing and recapture is shown for the month of recapture.

Month	Nov	Dec	Jan	Feb	March
No. of recapture events	11	8	6	4	10
Maximum	29	30	20	47	91
Minimum	1	1	2	13	7
Mean	9.09	15.38	11.17	25.75	41.20
Standard Deviation	8.13	10.28	7.03	14.73	23.53

Table 1. The number of recapture events, maximum, minimum and mean number of days between ringing and recapture for the month of recapture of winter ringed Chiffchaff. Standard Deviation for number of days between capture events is also shown.

Ring number	Month ringed	Duration (days)	Duration (days)
4E0254	January	16	31
9X5653	January	35	56
DCN697	November	8	21
HJH429	January	10	59
AHE666	November	92	135

Table 2. The number of days after ringing for Chiffchaff recaptured on more than one occasion within the same winter period.

Ring Number	Month Ringed	Month Recaptured	Duration (days)
HJH407	November	February	1161
HJH405	November	January	420
AHE671	November	January	447
EKD244	December	February	425
APP028	December	January	397
APP416	January	December	701
0S1202	January	November	310

Table 3. Chiffchaff ringed in one winter period and recaptured in a subsequent winter period.

Ring Number	Month Ringed	Month Recaptured	Duration (days)
HJH442	January	October	274
HJH426	January	March	773
ECX863	November	March	477
APP410	January	October	280
APP720	March	December	281
9X5656	March	January	319
4E0264	March	November	245

Table 4. Chiffchaff either ringed or recaptured just outside the winter period criteria that showed inter-seasonal site fidelity.

Discussion

This investigation was prompted by the recapture of Chiffchaff HJH407 three years and two months after ringing – a quite remarkable bird in terms of the CVRS dataset.

The dataset shows that a proportion of Chiffchaff do indeed show same winter and inter-winter site fidelity within the CVRS environs.

From Figure 4, it can be seen that for Chiffchaff ringed during the winter period, the difference between maximum and minimum number of days between ringing and recapture in each month is large. The Standard Deviation for each winter month is large meaning that the spread of values within this maximum and minimum range is large. One interpretation of this would be that part of the winter Chiffchaff population at CVRS is nomadic and transient, i.e. individuals do not hold a winter territory but instead roam a larger area than the CVRS ringing environs. There is little evidence as to how large an area these wintering Chiffchaff roam, though HJH407 shows that it may extend to at least the opposite side of Chew Valley Lake, 4km to the north. There are also many winter-ringed Chiffchaff that are not recaptured after ringing. Some undoubtedly succumb to natural causes, whilst the others presumably leave the CVRS recording area not to return. They show no winter site fidelity within the CVRS recording area.

There have been no recoveries of Chiffchaff that were ringed at CVRS during the winter period, so possible movements of individuals during the winter period is unknown. There have been three controls at CVRS during the winter period of Chiffchaff ringed elsewhere, all controlled in November. Two are of presumed UK origin, Redcar and Gloucestershire, ringed in June and August respectively. The other was ringed in Belgium, also in August. It would appear then, that for at least the start of the winter period, the Chiffchaff population at CVRS includes some birds of UK origin.

From Figure 3, March has the greatest number of recaptures of winter ringed Chiffchaff, and the greatest mean duration between ringing and recapture, perhaps indicating that individuals may indeed move a much greater distance than the environs of CVRS during the winter period, and that this increase in March could be part of the spring migration. Another possibility may be that food resources within the CVRS ringing area increase at the end of the winter period, thus attracting more individuals and hence an increase in the chance of recapture.
Figure 4 shows an increase in February and March in both the maximum and mean number of days between ringing and recapture. This perhaps shows that although an increase in these numbers would be expected due to the marked Chiffchaff having been within the population for the greatest period of time (and hence increasing the chance of recapture), they are indeed returning to an area used previously within a single winter period. This may show transient nomadic behaviour or, as suggested above, the CVRS ringing area may be a stop-over on migration routes.

Evidence for a small proportion of the winter Chiffchaff population being temporarily sedentary is tantalising but not convincing (see Table 1). The number of days between recapture events and the low number of individuals involved (five) is not conclusive. The number of days between recapture events for 4E0254 is 15, and for DCN697 it is 13. This would indicate that the birds remained within the environs of CVRS, but it is unknown if these individuals were sedentary between recapture events and therefore it can not be interpreted that they were holding winter territories as per Catry *et al.* 2003.

There is no conclusive evidence to suggest individual Chiffchaff were resident through a winter period.

This study of the CVRS dataset also revealed that Chiffchaff APP040 ringed in December 2004 was recaptured in both May and June of the following summer and identified as a male by the presence of a cloacal protuberance. Chiffchaff 4E0257 was ringed in January and recaptured in early April. It is unknown if this bird also remained during the breeding season or was a late migrant. The CVRS dataset thus shows that the winter Chiffchaff population does potentially contain individuals of UK origin.

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A brief history of Chew Valley Ringing Station

by

Mike Bailey

Ringing at Chew Valley Lake began on 4th. June 1961 when eight Reed Warblers and one Reed Bunting were mist-netted. Further visits that year provided a total of 226 birds of 24 species, heralding the lake's potential as a ringing site. The Mendip Ringing Group was formed in the following year and began operating at a number of sites, particularly the Saltford Sewage Works. Permission was given by Bristol Waterworks Company to ring at the lake and although ringing was held up by the severe winter of 1962/63 it restarted in April 1963.

The ringers tried various sites around the lake and by mid-summer had decided that the southern end of the lake was the most suitable area in which to base their activities. It was realised that the lake margins were an important breeding site and feeding area for warblers in the summer and autumn and emphasis on this aspect of ringing at the Chew Valley Lake continues to this day. It soon became obvious that the lake offered so much potential that ringing at other sites would have to be abandoned. It was therefore decided to re-name the group to fit its single-site status as the Chew Valley Ringing Station and the new name was officially adopted from the beginning 1964.

Ringing was carried out in the open or from the back of a car but in 1965 a 3m x 2m garden shed filled the triple-role of laboratory, equipment store and shelter. In 1968 a larger hut measuring 7m x 4m had four small rooms; laboratory, office, kitchen and lobby, plus a loft for the storage of poles. Services included electricity, calor gas and running water. In 1988 Bristol Water provided a much larger hut (13m x 7m) and laid the breezeblock foundations. The hut then had to be moved in sections from Bristol, at Old Sodbury, and CVRS members took on the challenge of rebuilding it. £2,000 was raised by a sponsored birdwatch and donations from local natural history societies and CVRS members. Local firms were very generous in donating plywood sheets and preservative and the hut was operational by April 1989.

Chew Valley Ringing Station. Hut No 3 reconstructed in 1989

In the years covered by this history the catching effort had been dominated by the use of mist nets although various traps have also been used. A large Heligoland style trap was erected in 2007 with 50% of the funding coming from the Bristol Naturalists' Society.

The newly constructed Heligoland trap in 2007

Table 1 Ringing Total list by CVRS 1961 - 2018

Circa 210,000 birds of 144 species were ringed with an average of 3,754 birds per year. The highest annual total was 7,091 in 1995.

1	Canada Goose	5609
2	Barnacle Goose	1
3	Greylag Goose	6
4	Mute Swan	212
5	Egyptian Goose	1
6	Shelduck	3
7	Garganey	2
8	Shoveler	2
9	Gadwall	6
10	Wigeon	60
11	Mallard	501
12	Pintail	2
13	Teal	147
14	Pochard	3
15	Tufted Duck	37
16	Goldeneye	2
17	N.A.Ruddy Duck	1
18	Little Grebe	27
19	Great Crested Grebe	21
20	Grey Heron	1
21	Cormorant	1
22	Sparrowhawk	98
23	Buzzard	9
24	Water Rail	202
25	Spotted Crake	6
26	Moorhen	781
27	Coot	234
28	Lapwing	19
29	Ringed Plover	114
30	Little Ringed Plover	10
31	Whimbrel	5
32	Curlew	6
33	Black-tailed Godwit	1
34	Knot	1
35	Ruff	12
36	Curlew Sandpiper	6
37	Temmink's Stint	1
38	Little Stint	8
39	Dunlin	298
40	Jack Snipe	4
41	Snipe	219
42	Common Sandpiper	258
43	Green Sandpiper	28
44	Redshank	15
45	Wood Sandpiper	11
46	Spotted Redshank	4
47	Greenshank	17
48	Black Headed Gull	84
49	Great Black-backed Gull	1
50	Herring Gull	3
51	Lesser Black-backed Gull	11
52	Black Tern	1
53	Little Auk	1
54	Stock Dove	40
55	Wood Pigeon	88
56	Collared Dove	1
57	Cuckoo	27
58	Barn Owl	88
59	Tawny Owl	45
60	Little Owl	1
61	Long Eared Owl	1
62	Short Eared Owl	1
63	Swift	1,802
64	Kingfisher	674
65	Wryneck	3
66	Lessr Spotted Woodpecker	9
67	Great Spotted Woodpecker	190
68	Green Woodpecker	18
69	Kestrel	25
70	Hobby	3
71	Jay	56
72	Red-backed Shrike	1
73	Magpie	59
74	Jackdaw	370
75	Rook	118
76	Carrion Crow	82
77	Raven	4
78	Coal Tit	757
79	Marsh Tit	136
80	Willow Tit	4
81	Blue Tit	18,888
82	Great Tit	9,269
83	Bearded Tit	83
84	Skylark	11
85	Sand Martin	4,897
86	Swallow	18,344
87	House Martin	3,669
88	Cetti's Warbler	774
89	Long-tailed Tit	3,757
90	Wood Warbler	5
91	Yellow-browed Warbler	3
92	Willow Warbler	6,161
93	Chiffchaff	14,201
94	Aquatic Warbler	10
95	Sedge Warbler	18,678
96	Reed Warbler	40,857
97	Marsh Warbler	1
98	Grasshopper Warbler	59
99	Savi's Warbler	1
100	Blackcap	9,449
101	Garden Warbler	2,794
102	Lesser Whitethroat	2,118
103	Whitethroat	1,798
104	Firecrest	14
105	Goldcrest	1,655
106	Wren	5,213
107	Nuthatch	33
108	Treecreeper	896
109	Starling	2,311
110	Blackbird	2,528

111	Fieldfare	79	129	Pied Wagtail	1,548
112	Redwing	435	130	Meadow Pipit	143
113	Song Thrush	1,147	131	Tree Pipit	17
114	Mistle Thrush	17	132	Water Pipit	3
115	Spotted Flycatcher	165	133	Rock Pipit	6
116	Robin	3,394	134	Chaffinch	3,986
117	Bluethroat	1	135	Brambling	34
118	Nightingale	6	136	Bullfinch	1,290
119	Pied Flycatcher	4	137	Greenfinch	5,163
120	Redstart	68	138	Linnet	190
121	Whinchat	41	139	Redpoll	186
122	Stonechat	22	140	Goldfinch	1,434
123	Wheatear	4	141	Siskin	144
124	House Sparrow	247	142	Yellowhammer	2
125	Tree Sparrow	250	143	Little Bunting	1
126	Dunnock	3,273	144	Reed Bunting	4,181
127	Yellow Wagtail	535		**TOTAL**	**210,238**
128	Grey Wagtail	29			

Of course rarities, by their very definition, rarely turn up but nevertheless it does happen and surprises have included: Bluethroat (1968), Little Bunting (1976), Savi's Warbler (1986) and Marsh Warbler (1994). Other species such as Wryneck, Aquatic Warbler and Yellow-browed Warbler have even occurred on more then one occasion. However, it is the 'common' birds that are the mainstay of the ringing station's activities.

Table 2 Top ten species 1961-2018

1	Reed Warbler	40,857
2	Blue Tit	18,888
3	Sedge Warbler	18,678
4	Swallow	18,344
5	Chiffchaff	14,201
6	Blackcap	9,449
7`	Great Tit	9,269
8	Willow Wa bler	6,161
9	Canada Goose	5,609
10	Wren	5,213

As a major reed bed site it is not surprising that Reed and Sedge Warbler are high on the list and the number of Reed and Sedge Warblers ringed per year from 1961 onwards is shown in Figure 1. In the mid-1960s there were more Sedge Warbler than the Reed Warbler, by the mid-1970s their numbers were approximately equal and from the mid-1980s Reed Warblers were more numerous. The ups and downs in the totals reflect both the conditions they face in their winter quarters in Africa and the variation in catching effort at the lake. That the Reed Warbler now dominates the CVRS ringing totals is thought to be caused by the gradual development and expansion of the reed beds around the lake margins. This provides conditions that are ideal for Reed Warbler and less so for Sedge Warbler as their preferred fen-scrub-swamp habitat has become increasingly restricted due to the expansion of the *phragmites*. For both these species, especially Sedge Warblers, their high numbers are due to birds that have bred elsewhere but use the lake as a stopping off and fattening up site in readiness for migrating. The nest recorders might also admit that the Sedge Warbler nests are much harder to find!

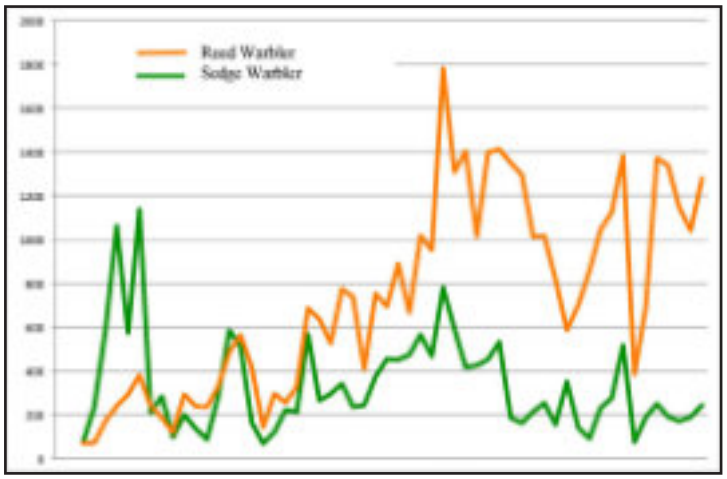

Figure 1. Reed and Sedge Warbler annual ringing totals 1961-2018

Blue and Great Tits form a significant proportion of the overall total as a large number are ringed as nestlings in the spring and when coming to feeding stations in the autumn and winter months.

Although only a small number of Swallows are ringed locally during the early part of the breeding season large catches are possible as they come in to roost in the reed beds during July and August.

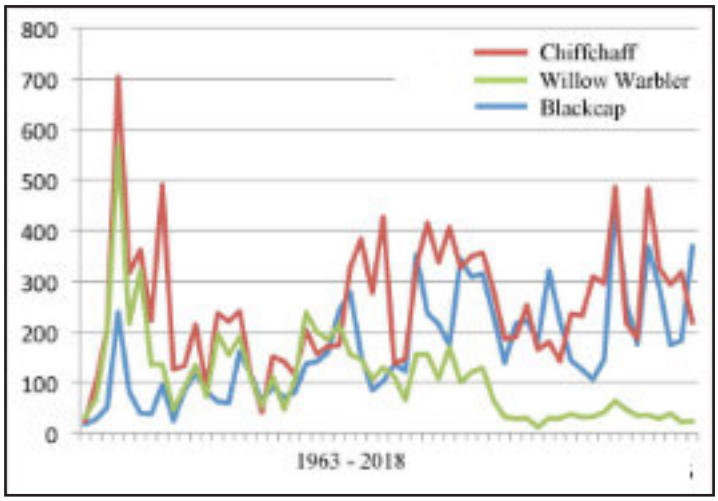

Figure 2. Blackcap, Chiffchaff and Willow Warbler annual ringing totals 1963-2018

Blackcap, Chiffchaff and Willow Warbler are our other commonest summer visitors. The CVRS totals in the graph Figure. 2 for the years 1963 – 2018 reflect the long-term national trends. Especially noticeable is the reduction in Willow Warbler numbers reflecting their decline as a breeding species locally. Wren (5213), Reed Bunting (4181), Long-tailed Tit (3757), Robin (3394) and Dunnock (3273) represent the common resident passerines at the lake.

Canada Goose roundup at Sutton Wick Bay

The Canada Goose appearance as 9th on the list is thanks to the annual Canada Goose roundup during their flightless period. Traditionally this takes place on a Tuesday, either at the end of June or early in July. The most frequently reported ringed species is Canada Goose with 600 records (25% of the total). A large majority of these are noted as being shot for crop protection in Devon and Somerset. The map, Figure 3, represents the number of reports from a 10km square with black dots denoting multiple recoveries.

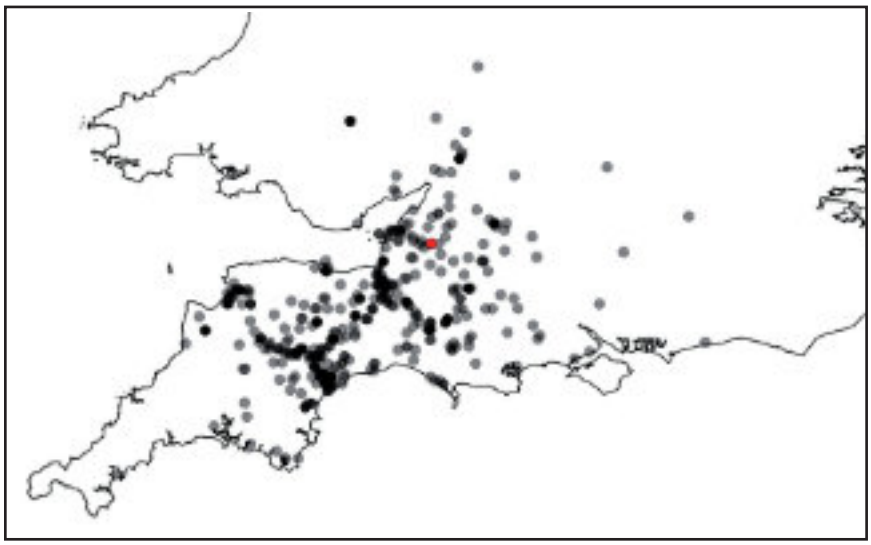

Figure 3. Distribution map of South-West England and South Wales showing sites of Canada Goose recoveries. Red dot CVL

There are two individual birds that deserve special mention and both were almost certainly born at CVL. Cetti's Warbler N482152 was ringed as a juvenile male on 20th June 1999 and retrapped 28 times until it was last trapped on 18th October 2008. A couple of years after initial capture he moved from the east side of the reserve and settled in the area of our constant effort site in front of the ringing station having lived for at least 9 years, 3 months and 28 days. He holds the UK longevity record for this species.

Reed Warbler F088114 was caught as a juvenile on 17th July 1989 and sexed as a male by cloacal development in subsequent years. He was recorded once or twice every year until last seen on 13th May 2001 having lived for at least 11years, 3 months and 15 days. He remained in approximately the same area of the reserve throughout his life except that remarkably he must have made 12 return trips to Africa!

Table 3. Totals list of species and reporting countries of birds either ringed at Chew Valley Lake (recoveries) or ringed elsewhere (controls).

Species	Austria	Belgium	Corsica	Denmark	Estonia	Finland	France	Ireland	Germany	Italy	Latvia	Morocco	Netherlands	Norwat	Poland	Portugal	Scotland	Senegal	Spain	S. Africa	Sweden	Syria	USSR
Wigeon				1		1																	1
Teal				1		2	2																
Tufted Duck													1										1
Cormorant																	2						
Coot							1																
Ringed Plover												1											
Jack Snipe						1																	
Snipe							2												1				
Bl H Gull				2	1	2					1			1	6						1		1
Lsr B-b Gull							1																
Short E Owl																	1						
Swift												1					1						
Sand Martin							3										5	3	6				
Swallow							3					3								12			
House Martin										1													
Willow Warbler							2									1							
Chiffchaff		1					2											1	1				
Aquatic Warbler															1								
Sedge Warbler		3						3				1	1				8	1	4				
Reed Warbler		2					28					7		1		8		2	13				
Blackcap			1									4				2			2				
Garden Warbler							1					1							1				
Lsr Whitethroat	1									2												1	
Whitethroat												1											
Starling					1																		
Blackbird				2									1										
Fieldfare							2																
Redwing		2																					
Song Thrush				1			1																
Yellow Wagtail																			2				
Pied Wagtail		1					1									3	2						
Chaffinch		2											2	1									
Linnet							1																
Goldfinch		1					2	1											4				
Siskin													1										

Recoveries and controls

There are 2,400 records of birds that have been found elsewhere (recoveries) and of ringed birds found at the lake (called controls). Table 3 is a summary of CVRS's foreign recoveries. Nearly all will have come from birds wearing conventional metal rings that were found either dead or captured by other ringers. In a few cases though, especially the Black Headed Gulls, the reports come via colour rings being read 'in the field'. At 9,700 km the Swallow records from South Africa make this species our most distant migrant. Nine of these were reported in the early years of the ringing station from 1967 – 1969. There are seven birds, Chiffchaff (1), Reed Warbler (2), Sand Martin (3) and Sedge Warbler (1), reported from Senegal. This is thanks to a team of UK based ringers who visited the Djoudj National Bird Sanctuary in the 1991/1992 winter.

Catching Effort

Clearly, if there is to be any means of calculating changes in bird populations by general ringing then it will be necessary to adjust for catching effort. Three measures were proposed by Roy Smith published in the CVRS 6th Report covering 1976–1978 pp 20-25. These were 'Operational Days', 'Ringer Days' and 'Net Foot Hours'. Of these the net foot hours have proven to be the most useful. (Net foot hours are based on a standard full height net so that, for example, two sixty foot nets operated for 5 hours = 2 x 60 x 5 = 600 NFH). In Figure 4 the 1990s stand out as a period of much greater ringing activity in the use of mist nets (peaking in 1993. This period coincided with visits in the summer months by the West Wilts Ringing Group and several very active CVRS members.

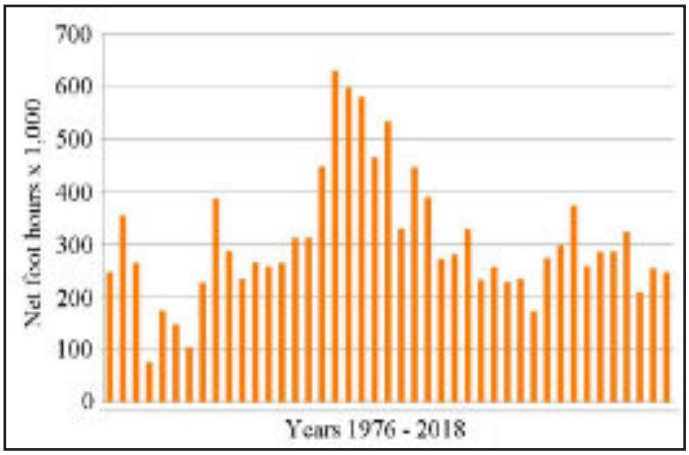

Figure 4. Annual catching effort at CVRS measured in net foot hours x 1,000

Constant effort ringing

To help address the question of the variability of catching effort the ringing station takes part in the BTO's Constant Effort Scheme (CES). This has been in operation since 1983 with the first four years being used to test and validate the scheme. Ringers operate the same nets in the same locations over the same time period at regular intervals through the breeding season at over 140 sites throughout Britain and Ireland. The Scheme provides long-term trend information on the abundance of adults and juveniles, productivity and also adult survival rates for 24 species of common songbird. Of these, two are on the 'Red list' of the Birds of Conservation Concern (BOCC) document (Song Thrush and Willow Tit) and four are Amber-listed (Dunnock, Willow Warbler, Bullfinch and Reed Bunting). The other species are Wren, Robin, Blackbird, Cetti's Warbler, Sedge Warbler, Reed Warbler, Whitethroat, Lesser Whitethroat, Garden Warbler, Blackcap, Chiffchaff, Long-tailed Tit, Blue Tit, Great Tit, Treecreeper, Chaffinch, Greenfinch and Goldfinch. All, apart from Willow Tit, occur annually at our CES sites at Chew Valley Lake and are included in the national figures for population trends.

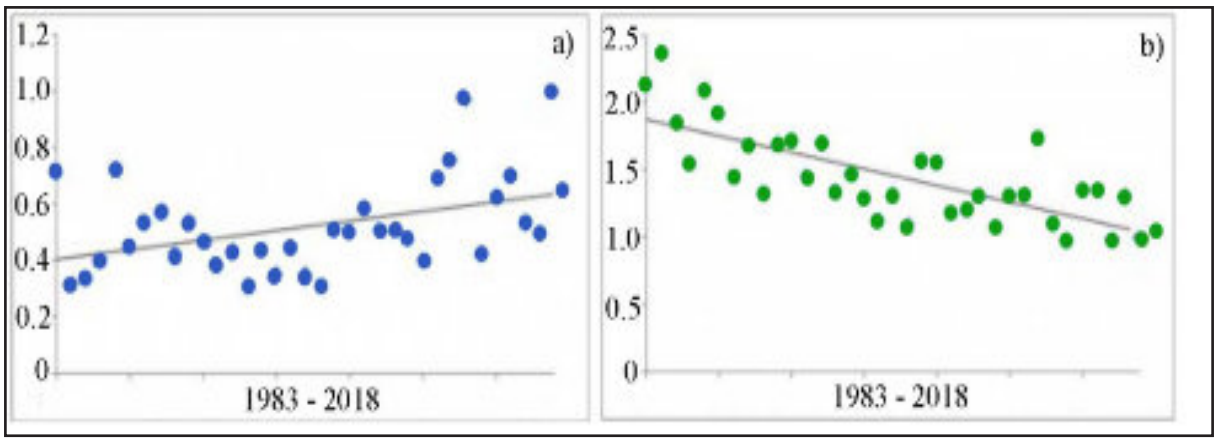

Figure 5. National trends published by the British Trust for Ornithology for breeding adults present at all CES sites 1983 - 2018 a) Chaffinch, b) Willow Warbler

For example, Figure 5 plots the long-term trends nationally for Chaffinch, with the breeding population increasing, and for Willow Warbler which is declining. The majority of CES sites are in dry scrub (45), wet scrub (38) and reed beds (31) with a smaller number of sites in deciduous woodland and other habitats (26). The ringing station runs two sites, one on each side of the nature reserve.

Computerisation

The use of computers by CVRS began in the mid- 1980's with ringers experimenting with various home computers and databases. However, no real progress was made until 1993 when the British Trust for Ornithology produced a standardised programme called B-RING. This was originally based on the BBC B home computer and could be used for sending records to their headquarters on a disc and subsequently by email. Despite the setbacks of two burglaries and theft of the computer the data group which, for some unknown reason, became known as "The Tufty Club" held regular meetings on Tuesday evenings for data entry. By 2003 two computers were in operation and a switch was made to using the BTO's IPMR (Integrated Population Monitoring Recorder). This involved not only entering the current data for submission to the BTO but work also began on catching up with historical records back to 1976; a rather monumental task that was completed by 2007. The CVRS database now holds records for circa 275,000 birds. This includes 95,000 recaptures that provide some of the most informative data for analysis. Currently the ringing scheme is setting up a new system called DemOn (Demography On-line) which will allow data to be input directly via the internet into the BTO's central database.

Training

By its very nature ringing is a practical activity and the training is akin to an apprenticeship. For someone interested in become a ringer it probably begins by seeing it taking place, perhaps at a nature reserve or when visiting a bird observatory and it also gets wide coverage these days with television programmes such as Autumnwatch and Springwatch. Having made contact, usually through the BTO's website, the progress is from helper, through a series of permit grades and endorsements, to finally becoming a fully-independent 'A' ringer and possibly a Trainer. There is no hard and fast rule about how long it takes to become a qualified ringer but typically, for people that are taking it up recreationally, a couple of months are spent as a helper, two years as a trainee and two to three years as a 'C' ringer, making it around five years in total. The training at Chew Valley Ringing Station can provide enough experience for a permit to ring passerines and near passerines, ducks, birds of prey and rails. However, for other species such as seabirds and waders the appropriate training has to be obtained elsewhere. However, the ringing scheme can be flexible and it is possible to qualify quite quickly for a 'restricted' permit for projects not involving the use of mist nets. For example, an experienced nest recorder may wish to broaden their study by ringing nestlings or a carer at a bird hospital could qualify to ring rehabilitated birds on their release.

Training is a core activity for the ringing station. Some trainees will move on to run their own sites and projects while others remain as part of the established crew of around 50 members. Since 1991, thanks to the larger hut, CVRS has been able to organise an annual BTO sponsored ringing course. This takes place over a long-weekend at the end of July and aims to give ringers from other parts of the country the experience of reed bed ringing and an opportunity for an independent assessment for permit upgrades.

Left: Participants at one of CVRS's ringing courses

Nest recording

Although a small number of nests may be recorded in March, the main focus begins in April and is split between checking boxes and searching for open nests. As the ringing of chicks requires different sets of skills it is necessary to obtain separate permit endorsements for nest box passerines, open nest passerines, birds of prey, wader chicks and at seabird colonies.

CVRS runs circa 200 nest boxes (170 small ones used mainly by tit species and the occasional Robin, and 30 large boxes used by owls, Jackdaws and Stock Doves. These need to be checked at least once per week to give full nest histories and outcomes. Of course, the advantages are that the position of the nests are known and the details for the nest recording card (orientation, height, tree species, site and habitat codes) can be transferred from one year to the next. The tit pulli are ringed at around 10-16 days old when the primary feathers are between just breaking out of pin and 1/3rd grown.

Finding and then ringing passerine nestling in open nests is definitely more of a challenge and great care needs to be taken not to disturb vegetation and draw the attention of predators. There is also a smaller 'window of opportunity' to ring the nestlings of around four days between when they are large enough to ring and yet young enough that they sit tight and do not 'explode' when the nest is approached.

Reed Warbler brood - ready for ringing

The CVRS Year

Apart from the general mist netting and training a pattern of activities has emerged. In the winter months the lake level usually rises to such an extent that much of the reed bed is inaccessible and there is a greater use of feeding stations and the Heligoland trap. A recent winter project in conjunction with Aberdeen University has been to investigate which sub-species of Chiffchaff occur at the lake between November and March. By using mitochondrial DNA it has been possible to identify three subspecies *Phylloscopus collybita collybita* (nominate), P. *c. abietinus* (Northern) and *P. c. tristis* (Siberian). All three have been shown to be present although, at the time of writing, we await the results from samples taken in 2017 and 2018. By April nest recording gets underway. The 200 boxes need to be checked once per week and searching for open nest is undertaken by a small band of very dedicated recorders. CVRS contributes approx 650 nest records annually to the BTO's Nest Recording Scheme. The constant effort scheme begins on May 1st and runs through until the end of August. The two CES sites are operated from 6.00 am until 12 noon with three sessions per month at approximately 10 day intervals. The end of June is the 'traditional' time for the Canada Goose roundup and the BTO sponsored ringing course takes place at the end of July. In the autumn and winter more time is taken for habitat management, sometimes helped by groups of volunteers. In between these activities the ringing station plays host to various interested groups to demonstrate and explain the rationale behind the bird ringing process.

Further information may be found on our website at www.chewvalleyringingstation.co.uk which gives a monthly update on ringing activities.

More immediate news is tweeted via our Twitter account @CVRSnews.

Habitat management with help by a tean of volunteers on 11th October 2018

Bristol Water

And finally no account about the history of Chew Valley Ringing Station is complete without a special mention of our relationship with Bristol Water. As expressed in our Chairman's Report on page 3, from the outset Bristol Water has always been supportive of our activities and in so many ways. Not only supplying our present accommodation but every year with donations for various items such as rings, producing reports and help with reed bed management. Above all, though, allowing us access to one of the best reed bed ringing sites in the country!

CVRS Income & Expenditure Accounts 2016 - 2018

Income	2016	2017	2018
Subs Ringers	£720.00	£810.00	£795.00
Subs Assocs	£24.00	£28.50	£27.00
Hut Fees	£924.30	£1,059.90	£1,216.85
Ring Refund	£255.99	£252.44	£248.13
Ringing Course	£866.00	£1,455.90	£1,590.90
Donations (incl. RAFOS)	£236.72	£204.45	£89.60
Sponsorship/ restricted donation	£625.00	£0.00	£0.00
Report Sales	£40.00	£3.00	£0.00
Equipment Sales	£0.00	£0.00	£0.00
Keys Sales	£10.00	£10.00	£0.00
Net Sales	£0.00	£0.00	£0.00
Total Income	**£3,702.01**	**£3,824.19**	**£3,967.48**
Expenditure	2016	2017	2018
Rent	£56.00	£28.00	£28.00
Insurance	£605.00	£607.62	£638.46
Officers Expenses	£0.00	£0.00	£0.00
Electricity	£207.79	£198.11	£206.42
Ring Purchases	£1,034.00	£922.75	£1,066.50
Net Purchases	£0.00	£0.00	£206.50
Ringing Equipment	£85.05	£513.61	-£90.28
Ringing Course Expenses	£348.75	£356.60	£380.87
Hut Maintenance	£90.16	£301.05	£366.27
Bait	£266.20	£126.68	£203.40
Catering	£20.12	£19.20	£0.00
Stationery	£31.59	£50.00	£31.80
Report Costs	£395.22	£0.00	£0.00
Keys	£0.00	£12.00	£0.00
Donations	£0.00	£0.00	£0.00
Books & Reports	£59.46	£60.00	£0.00
Traps	£0.00	£0.00	£0.00
Boat	£0.00	£0.00	£0.00
Computer Equipment	£29.00	£0.00	£29.00
Nestboxes	£200.28	£0.00	£0.00
Total Expenditure	**3428.62**	**3195.62**	**3066.94**
Surplus/(Deficit)	£273.39	£628.57	£900.54
Brought Forward	£2,377.40	£2,650.79	£3,279.36
Carried Forward	£2,650.79	£3,279.36	£4,179.90