Progress on bird ringing by The Wildfowl & Wetlands Trust during 1991

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The total number of swans, geese and ducks ringed by The Wildfowl & Wetlands Trust (WWT) in 1991 is shown in the Table below. There was a slight increase in the number caught compared to 1990 (5840) with Blunham, Abbotsbury and Abberton all having good seasons.

George Brown, Graham Ekins and other volunteers continue to operate the duck traps at Abberton on our behalf and their catch, particularly of Teal Anas crecca, showed a marked increase (177%) over 1990. Abberton still catches good numbers of our less common ducks and this year provided all the Garganey Anas querquedula and Ruddy Ducks Oxyura jamaicensis - in fact 66% and 84% respectively of all these two rarer ducks ringed in Britain have been caught at Abberton. After reporting last year that the catches at the Abbotsbury Decoy have been falling, Dick Dalley had a very good autumn for Teal. The catching at Blunham improved considerably (a 150% increase on last year) under the supervision of Arnold Zwetsloot. Catches of diving ducks at Blunham are the highest in Britain and, in 1991, over 100 Gadwall Anas strepera and over 300 Wigeon Anas penelope were also taken there in the large cage trap. Fewer birds were caught at Eastpark Farm, Caerlaverock, than in previous years. This is partly due to fewer ducks entering the swan pipe during our attempts to ring swans, and partly because the number of retrapped swans caught increases each year. The huge wildfowl catch at Martin Mere reported last year was not repeated in 1991; the skilful actions of Chris Tomlinson baiting and operating the trap produced an excellent sample of Bewick's Swans Cygnus columbianus bewickii (including one catch of 168) whilst keeping the number of Mallard Anas platyrhynchos, in particular, to more manageable numbers. The numbers of Shelduck Tadoma tadoma and Pintail

Anas acuta ringed there also continues to increase and there is good potential for catching diving ducks. Shelducks have recently started to breed in good numbers at Martin Mere and, in an attempt to understand the processes behind this recent colonisation, each bird has also been fitted with a coloured plastic leg ring. Duck and swan catching at Slimbridge improved by 50% over the 1990 total, with increases of all duck species. Considerable improvements to the Duck decoy, one of only four left operational in Britain, made by Richard Chappell, paid off with good catches of Shoveler Anas clypeata and Pintail

Studies into the ecology and behaviour of our migratory swans were continued in 1991. In addition to swan catches during the winter in Britain, 20 Bewick's Swans were marked in Arctic Russia, plus 384 Whooper Swans Cygnus cygnus in one of the best swan catching efforts in Iceland in recent years. Dr Eileen Rees and Dr Dafila Scott visited western Siberia during July to investigate the possibilities of studying the breeding ecology of the Bewick's Swan. An aerial survey revealed 2956 swans, including some Whoopers. During studies of the behaviour of incubating pairs, they successfully identified three ringed birds. Their Russian colleagues later caught and ringed 20 moulting Bewick's. Sightings of these birds have come from the Netherlands, Germany and from our own Centres at Martin Mere and Welney.

Every two or three years, moulting Mute swans *Cygnus olor* are ringed at the famous Abbotsbury colony in Dorset as part of our long-term population monitoring project in collaboration with the Edward Grey Institute. At 06.00 h on 20 July a small flotilla of canoes herded 613 swans into special holding pens; with the help of over 50 volunteers, every bird was checked for leg rings and, if not already marked, was fitted

Numbers of wildfowl ringed by the Trust in 1991. Some of these were ringed as part of The Wildfowl & Wetlands Trust's projects but with rings from other groups.

	Abbe	Abbo	Blun	Boro	East	Mart	Slim	Other	Total
Mute Swan		200		1	23	2	3	1	230
Cygnus olor									
Bewick's Swan						268	58	20	346
C. columbianus bewicki Whooper Swan	ı				34	1.0		204	40.4
C. cygnus					34	16		384	434
Pink-footed Goose						297			297
Anser brachyrhynchus									
Greylag Goose			2		5		17	94	118
A. anser									
Canada Goose					17		25	463	505
Branta canadensis					=0			0.0	
Barnacle Goose					79			92	171
B. leucopsis						07	-	0.5	100
Shelduck Tadorna tadorna		1				27	7	95	130
Mandarin							14		14
Aix galericulata							14		14
Wigeon			305	1	8		36	93	443
Anas penelope			000	•				-	
Gadwall	36		111	I			89	4	241
A. strepera									
Teal	477	131	31	123	1	6	80	141	990
A. crecca									
Mallard	243	45	2	270	21	91	677	115	1464
A. platyrhynchos							0.0		
Pintail	2				2	31	98	4	137
A. acuta	-								-
Garganey	5								5
A. querquedula Shoveler	11	1					12	3	27
A. clypeata	11	1					12	3	21
Pochard	5	I	370			1	167	1	545
Aythya ferina	Ů	•	010			•	101	•	0.10
Tufted Duck	53		322				22	14	411
A. fuliga									
Ruddy Duck	5								5
Oxyura jamaicensis									
Others			1				2	16	19
Total	837	379	1144	396	190	739	1307	1540	6532

Abbe - Abberton East - Eastpark, Caerlaverock Abbo - Abbotsbury Mart - Martin Mere Blun - Blunham Slim - Slimbridge Boro - Borough Fen

Other sites include: North Uist (Greylag Geese, Eider), Ribble Estuary (Shelduck), Welney WWT (Whooper Swan), Lindisfarne NNR (Wigeon), Iceland (Whooper Swans), Rye Bay, Sussex (Dabbling ducks), Chew Valley Lake (Canada Geese, Mallard), Loch Leven (Wigeon), Derwent Ings (Mallard, Teal), Highland Ringing Group (Wigeon), Llanelli WWT (Mute Swan, Mallard).

Other species include: 1 Scaup Aythya marila (Blunham), 1 Egyptian Goose Alopochen aegyptiacus (Slimbridge), 1 Red-crested Pochard Netta rufina (Slimbridge) and 16 Eider Somateria mollissima (Uists).

with a metal British Trust for Ornithology (BTO) ring and a plastic one engraved with three letters.

Studies into the habits of Canada Geese *Branta canadensis* continued with another 500 birds marked (an increase of 32% over 1990). Included in these are almost all of the Canada Geese breeding at Frampton in Gloucestershire. This group forms an invaluable basis for understanding family composition, social status and breeding processes - the background to some of the studies of Stephanie Warren, a research

student based at Slimbridge. There is increasing concern about the rapid rise in Canada Goose numbers in Britain, particularly in view of the apparent conflict with agriculture and amenity areas. Our ringing effort has led to a better understanding of the seasonal movements and ecology of this introduced goose.

Pink-footed Geese Anser brachyrhynchus were successfully caught at Martin Mere using cannon-nets in the autumn, our largest catch being of 134 birds. Much of the success in this venture is afforded by

the generous help of John Turner, South West Lancs Ringing Group and the staff at Martin Mere. Each bird is fitted with a metal BTO ring and a white plastic ring engraved with three letters. Over the last five winters, more than 1200 birds have been marked in this way and we have learned much about their seasonal movements and are now beginning to establish life histories of individuals. Our long-term studies of colourmarked birds are dependent on sightings and we are fortunate to have the help of numerous volunteers who combine their enthusiasm for birdwatching with ring-reading. Andy Stewart and Derek Forshaw, in particular, have contributed large numbers of sightings of marked Pinkfeet from Lancashire and throughout their winter range. The world record holder for reading plastic rings however, must surely be Paul Shimmings, field biologist at our Caerlaverock Centre. Through his work on the Svalbard Barnacle Goose Branta leucopsis population, I estimate that between 1977 and 1991 'Shimmy' has recorded well over 100,000 sightings!

Ninety resident Greylags Anser anser were caught on North Uist during the moulting period with considerable help from Paul Boyer, a local ringer. Under contract to the Joint Nature Conservation Committee, we are investigating the survival and movements of this important goose population. Recent gradual increases in the numbers of Greylags on the Uists to about 2000 birds show that the population is holding its own. There has also been an increase in the numbers of Greylags breeding on Coll and Tiree.

As reported last year, WWT is making recommendations to Scottish Natural Heritage about action needed for the conservation of Greenland White-fronted Geese Anser albifrons flavirostris on Islay. Clive McKay has been appointed as a full-time temporary research officer and is monitoring the habitat use and feeding ecology of birds marked in Greenland, Wexford, Ireland and on Islay.

In general, the number of ducks caught in 1991 showed an improvement on recent years. To investigate annual mortality

rates we have nominally set ringing targets of 400 birds per year for five common species, and achieved those targets during 1991 for Mallard, Wigeon, Teal, Pochard Aythya ferina and Tufted Ducks Aythya fuliga. It is often difficult to catch less common ducks, but it proved a good year for Gadwall, Pintail and Shoveler.

The large rocket nets first used by Sir Peter Scott in the 1950s to catch Pink-footed Geese have been successfully modified to be fired by cannons. Details of the research and catches of Pinkfeet were well documented in many early issues of Wildfowl. Today, our own research into Pinkfeet, initiated by Dr Tony Fox, and Barnacle Geese, under the supervision of Dr Myrfyn Owen, have benefited from the use of the nets. On one occasion, and with an unexpected touch of nostalgia, the rocket net was set in the same field that Peter had used in October 1953; the local farmer, who gave us permission to try to catch Pinkfeet, informed us that he had helped Peter catch 308 birds. Unfortunately, Paul Shimmings and I were not nearly so successful in our attempts.

Ringing at the Constant Effort Site based in the decoy wood at Slimbridge continued with a total of 313 birds caught. This programme is largely carried out by WWT staff in their spare time and by volunteers from the Severn Vale Ringing Group. Non-wildfowl ringing also takes place at most of our Centres, with wardens and volunteers making full use of mist nets. At Washington, the nesting Grey Herons *Ardea cinerea* have been ringed as part of a project looking at dispersal and breeding performance.

There has been a recent marked decrease in the numbers of wintering Icelandic Greylags in Britain. It is hoped to initiate a ringing programme in Scotland in 1992 to investigate this decline. Another exciting investigation will involve attempts to understand the summer ecology of some of our rarer breeding ducks; already a programme started by the Grampian Ringing Group has revealed remarkable natal site fidelity of breeding Wigeon in Scotland. We hope to extend the studies to Shoveler in 1993.