EURING Newsletter 2

edited by

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ISTITUTO NAZIONALE PER LA FAUNA SELVATICA
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FOREWORD

Dear Colleagues and friends,

the first issue of the EURING newsletter, published in November 1996, has been very well received within the community of ringing schemes both within and outside Europe.

This publication can become a very useful tool to exchange information on the present situation and the future developments in the use of bird ringing as a tool for basic and applied research.

Thanks to its vast community of highly motivated ringers, in the last two years EURING has been able to launch new co-ordinated large scale projects (like the Swallow Project), start detailed anayses of unique historical sets of recovery data (like the EURING-Vogelwarte Radolfzell project), and plan future efforts to contribute to the better understanding of migratory strategies and routes of groups of species of particular interest (as in the case of the waterfowl migration atlas proposal).

These examples confirm the vitality of our Union and its positive evolution. The last EURING analytical meeting, held in Norwich in 1997, has been a milestone in the further developments of specific statistical models and procedures to make the best possible use of the unique sets of data which only marked individuals can offer to the scientist.

At the international level, EURING has been very active in promoting stronger contacts and co-operation among ringing schemes operating in the different parts of the world.

From this respect, EURING has been involved in the organisation of a specific round table discussion at the XXII I.O.C. in Durban South Africa, which resulted in the accepted proposal for a new standing committee on bird ringing within the I.O.C.

At the same congress, the potential contribution to basic science which can be offered by large-scale projects that can be organised through the network of national ringing schemes has been shown by a symposium devoted to the results of our new Swallow Project.

All these activities are positive premises for welcoming the celebration of the anniversary of the first 100 years of bird ringing through a major international scientific conference organised by EURING in october 1999 and which, we hope, will attract scientists and amateurs from all over the world, who owe so much to tiny rings when trying to unravel the most diverse aspects in the life of birds.

Fernando Spina

EURING President

calendar year of ringing, 5= hatched during previous calendar year, 6= hatched before previous calendar year, 7= definitely hatched two years before year of ringing, 8= hatched three or more calendar years before year of ringing.

7) EURING-code when found
8) Ring verification: + ring sent or otherwise verified.
9) Comments
10) Reference

1	2	3	4	5	6	7	8	9	10
Gavia stellata	SVG	D 1928	23-06	23-07	1	2300	+	Found oiled.	1
Gavia arctica	DFR	B 34256	26-11	27-10	4	2100			2
Tachybaptus ruficollis	HES	929838	13-00	13-06	2	8200			60
Podiceps cristatus	GBT	AJ 16070	11-10	12-08	4	2010			70 74
Puffinus puffinus	GBT	AT 14414	35-08	37-08	4	6200		Current ring EJ 14240, reringed four times, alive captive.	34 74
Fulmarus glacialis	GBT	352227	40-10	43-10	8	8290		Nesting male both at ringing and recovery, current ring FS 67216, reringed many times.	10 74
Hydrobates pelagicus	GBT	649064	31-10	33-09	4	8200			53 74
Oceanodroma leucorhoa	GBT	BB 84094	21-10	22-10	4	8200		Ringed and controlled in the same colony.	53-74
Sula bassana	GBT	1010391	32-03	32-04	1	2010	+	Found dead on beach rather fresh.	10 74
Phalacrocorax carbo	GBT	5001939	21-06	21-06	1	1010	+	Dead bird found.	69 74
Phalacrocorax aristotelis	NOS	207163	17-04	17-05	1	2340		Found in fishing gear	78
Botaurus stellaris	NLA	302703	10-04	11-03	4	2010			2
Ixobrychus minutus	HES	934781	05-00	06-00	4	8200		Female.	55
Nycticorax nycticorax	FRP	DA 2894	16-03	16-04	1	2010			5
Bubulcus ibis	ESM	E 10374	18-05	18-05	1	2100			58
Egretta garzetta	FRP	CD 2346	22-04	22-04	1	2100			5
Ardea cinerea	NLL	73617	35-00	35-01	1	2100			46
Ardea purpurea	DFR	B1495	25-04	25-05	1	2010			5
Ciconia ciconia	HES	S 127	38-11	39-00	1	2500			9
	FRP	B 3115	34-09	34-10	1	2010			5
	DDH	K 2392	29-10	29-11	1	8280		Breeding.	31
Ciconia nigra	PLG	A 995853	18-06	18-07	1	2100			61
Phoenocopterus ruber	FRP	FA 5233	27-06	27-06	1	8280			5
Cygnus olor	DFH	111617	27-10	28-07	4	8280			6
Cygnus columbianus	GBT	Z 31712	21-07	24-10	6	2100		Male.	53 74
Cygnus cygnus	DKC	A 5632	25-11	26-06	5	8200		Female.	62
Anser fabalis	NLA	8501690	21-08	22-04	4	2100			61
Anser albifrons	NLL	8008491	24-08	25-03	4	2100		Male.	8
Anser anser	BLB	0439	22-06	23-07	4	2400		Killed by car.	47
Branta canadensis	SVS	9803465	23-02	23-04	1	8280		Neck collar read.	30
Branta leucopsis	GBT	1071377	17-09	20-08	6	2500		Female, found with broken wing, in care for 3 weeks.	43 74
Branta leucopsis	NOA	20074	19-08	20-08	4	2010			78
Branta bernicla	GBT	GP 86154	19-01	19-09	5	2100			4 74
Tadorna tadorna	GBT	GP 44864	18-00	18-11	4	1780		Dead, violent weather.	33 74
Anas penelope	GBT	364356	19-06	19-09	2	2100	+		67 74
Anas strepera	GBT	AT 83971	21-03	22-04	4	2100		Male.	43 74
Anas crecca	GBT	915330	25-06	27-01	4				68
Anas crecca	FRP	ED 1418	20-08	21-03	4	2100			5
Anas platyrhynchos	GBT	GM 66939	25-03	25-07	3	3400		Female dead (not fresh) road casualty.	4 74

1	2	3	4	5	6	7	8	9	10
Anas acuta	NLL	5009767	26-03	27-05	4	2100		Male.	46
Anas querquedula	DFH	5151093	13-07	13-08	3	2010			6
Anas clypeata	SUM	E 47327	20-04		4				2
Aythya ferina	GBT	GH 30864	21-07	22-03	5	2100	+	Male.	51 74
Aythya fuligula	HES	Z 8377	19-11	20-04	2	2100		Female.	54
Aythya marila	ISR	3535	12-11	13-11	4	8200		Controlled breeding.	2
Somateria mollissima	GBT	942932	35-06	37-10	4	1030		Male dead, leg + ring	
Clangula hyemalis	GBT	SS 68635	19-11	21-02	4	2100		Male.	51 74
Melanitta nigra	ISR	328	15-10	16-09	4	2010			2
Melanitta fusca	SFH	H 57155	20-05	21-05	4	2100		Female.	52
Bucephala clangula	SUM	18692	16-11		4				2
Mergus albellus	SFH	C 257064	05-11	06-10	4	8200		Female.	39
Mergus serrator	SVS	W 107522	21-03	21-03	1	2100	+	Female.	1
Mergus merganser	SVS	9119460	13-04	13-11	4	2340	+	Female.	30
Pernis apivorus	DFR	C 52627	28-11	29-00	1	3010	+	Found in putrified condition but death took place in finding year.	2
Milvus migrans	DDH	320182	19-04	19-05	1	2401			31
Milvus milvus	DFR	D 26437	25-07	25-08	1	2200	+		55
Haliaeetus albicilla	SVS	9402042	21-11	22-00	1	8280		Female, earlier breeding with one year younger (20 + 19 years old).	22
Gyps fulvus	ESM	AB 1860	09-09	09-11	1	2010			58
Aquila chrysaetos	SVS	H 2043	28-05	32-00	8	3010	+		30
Circus aeruginosus	DDH	428670	16-08	16-08	1	2430			64
Circus cyaneus	NLA	3273552	17-01	17-01	1	2400		Female.	45
Circus pygargus	DFR	D 178	16-01	16-01	1	1010			2
Circus macrourus	FRP	FA 9410	12-06	13-05	5				5
Accipiter gentilis	DFH	3065454	19-09	19-09	1	2010			6
Accipiter nisus	DKC	588073	20-03	20-03	1	8200		Female.	73
Buteo buteo	DKC	313963	28-08	28-09	1	1010		Bird found dead since 2-3 weeks, good condition.	73
Buteo rufinus	ILT	B 147357	07-07	08-06	4	1010			16
Buteo lagopus	SFH	D 54910	17-06	17-07	1	3100		Dead a few weeks ago.	13
Pandion haliaetus	SFH	M 237	26-00	26-01	1	5580			52
Falco tinnunculus	GBT	3105785	23-10	23-10	1	3010		Dead bird (not fresh)	14 74
Falco vespertinus	FRP	GT 9477	12-04	13-03	4				
Falco columbarius	GBT	EB 28714	12-08	12-08	1	2010		Freshly dead bird found.	34 74
Falco subbuteo	DFH	200775	09-09	09-09	1	2010			12
Falco eleonorae	DFH	5265733	11-01	11-02	1	2100			6
Falco peregrinus	SVS	9002638	17-03	17-04	1	2400	+	Female, struck by a car with homing pigeon in her talons.	30
Bonasa bonasia	SVJ	16504	07-03	07-03	1	2100			1
Lagopus lagopus	SFH	H 127524	05-00	08-07	6	8200		Male.	52
Tetrao tetrix	SFH	D 84897	08-05	12-03	8	3100		Male.	36
	HES	Z 7919	07-11	08-07	5	8200		Male.	15
Tetrao urogallus	SVJ	36825	09-03	09-04	2	2100			1
Coturnix coturnix	GBL	2454	11-00		4			In Israel.	16
Rallus aquaticus	DFH	6263544	07-02	07-04	3	2430			6
Gallinula chloropus	DKC	403675	18-06	18-07	3	2010	+	Oiseau trouvé mort.	73
Fulica atra	DKC	316250	19-09	20-07	4	2100	+	Only number readable.	73
Grus grus	SFH	M 2479	17-02	17-03	1	2430		Hit wires.	37
Haematopus ostralegus	DFH	5022926	43-04	43-04	1	2640		Killed by bird of prey.	6
Himantopus himantopus	ESM	Y 4623	06-07	06-07	1	2010			58

1	2	3	4	5	6	7	8	9	10
Recurvirostra avocetta	DKC	531569	24-05	24-05	1	2300	+	Ringed as pull. 3 days.	73
Burhinus oedicnemus	GBT	ED 41923	17-09	17-10	1	2400	+	Freshly dead, road casualty.	53 74
Charadrius dubius	SFH	KT 453	11-11	12-11	4	8200		Male.	52
Charadrius hiaticula	GBT	BV 29882	16-07	16-11	2	1010		Dead bird found.	14 74
Charadrius alexandrinus	NLA	H 109521	14-11	14-11	1	8200		Female breeding.	17
Charadrius morinellus	SFH	A 442321	07-11	08-10	4	8200		Male breeding.	40
Pluvialis apricaria	NLL	364033	12-01	12-09	4	2100			2
Pluvialis squatarola	GBT	DS 28889	21-01	23-06	6	2650		Reringed DR 69382, freshly dead taken by predatory bird.	14 74
Vanellus spinosus	ILT	EE 1893	17-00	17-00	3	8200			16
Vanellus vanellus	DKC	690909	22-07	23-07	4	2200	+	Female.	73
Calidris canutus	GBT	CK 68568	24-00	25-01	4	8200		Reringed SX 19079.	10 74
Calidris alba	GBT	BB 52147	17-06	18-06	4	8200		Reringed NS 92013.	53
Calidris temminckii	SFH	J 811878	08-11	09-11	1	8200		Breeding.	40
Calidris minuta	FRP	1061363	11-10	12-00	3	2010			5
Calidris ferruginea	NLA	H 129034	16-10	17-00	3	8200			18
Calidris maritima	SFH	AT 14853	20-03	20-08	2	8290		Colour-rings read.	7
Calidris alpina	DKC	807017	28-07	28-10	3	8200			19
Limicola falcinellus	SVS	3386241	06-08	06-10	3	8200			30
Philomachus pugnax	SFH	AT 8167	13-10	13-11	3	2340		Female.	52
Lymnocryptes minimus	GBT	BV 13930	09-04	10-00	4	1010		Dead bird found.	67 74
Gallinago gallinago	GBT	CH 86465	17-10	18-03	2	1010		Dead bird found.	14 74
Scolopax rusticola	SFH	S 79887	10-11	11-05	2	2100			52
Limosa limosa	NLA	3208793	17-09	18-09	4	8200			20
Limosa lapponica	GBT	DS 00843	21-06	21-08	2	8200	+	Male reringed DFH 6326711.	68 74
Numenius phaeopus	GBT	SS 30020	12-01	13-00	4	2100			74
	DKC	5035295	12-01	12-02	2	2100	+		73
Numenius arquata	SVG	D 1266	31-05	31-06	1	2100			1
Tringa erythropus	DKC	645009	06-00	06-02	3	2100			73
Tringa totanus	GBT	DS 98061	18-05	19-06	4	2010		Freshly dead bird found.	4 74
Tringa ochropus	GBT	CR 63312	11-02	11-06	2	8200	+	Reringed BV 90591.	67 74
Tringa glareola	SVS	4035425	10-07	11-07	4	2100	+		1
Tringa stagnatilis	FRP	GA 84137	06-11	07-01	3	2100			5
Tringa nebularia	NLA	2040963	24-03	24-05	2	2101			44
Xenus cinereus	SFH	A 355038	12-11	13-11	4	8280		Male.	52
Actitis hypoleucos	SVS	3189307	13-05	14-06	4	3010		"Actitis" cadaber en putrefaccion.	1
Arenaria interpres	SFH	A 13503	19-08	19-08	1	2100			52
Stercorarius parasiticus	GBT	EC 43407	25-09	25-10	1				33
Stercorarius parasiticus	SFH	ST 9621	22-11	22-11	1	1010			7
Catharacta skua	GBT	HW 02100	28-10	28-10	1	2340	+	Freshly dead on longline fishing line.	74
Laruis minutus	SFH	AT 35319	17-10	20-10	6	8280			32
Larus ridibundus	NLL	119358	30-03	30-03	1	2010			2
Larus genei	SUM	E 462619	31-08	31-08	1	8200			16
Larus audouinii	ESI	6007691	09-10	09-10	1	8280			58
Larus canus	SUM	E 462619	31-08	31-08	1	8290		Controlled ,colour-ringed red 36K (Copenhagen).	59
Larus fuscus	GBT	AT 75973	31-09	31-09	1	2760	+	Freshly dead, & poor condition."	4 74

1	2	3	4	5	6	7	8	9	10
Larus argentatus	NLL	67943	31-11	31-11	1	2101		An american herring gull was found dead after 36 years (75).	2
Larus hyperboreus	NOS	33823	16-04	16-04	1	2100		Jan Mayen - Faeroes.	65
Larus marinus	SFH	D 23583	25-08	25-09	1	2100			35
Rissa tridactyla	GBT	EC 26662	28-05	28-05	1	1300		Oil victim of Braer oil tanker spill.	4 74
Sterna nilotica	DFH	6308865	12-10	12-10	1				6
Sterna caspia	SVS	U 22698	30-00	30-00	1	8280		In colony, probably	
Sterna sandvicensis	GBT	DS 04431	28-00	28-00	1	8200		Tape lured, reringed DK	14 74
Sterna dougallii	GBT	CK 73170	21-00	21-00	1	7280		Nesting.	33 74
Sterna hirundo	DFH	679964A	30-09	30-09	1	2500		Found exhausted, died.	6
Sterna paradisaea	GBT	CK 10952	29-09	29-09	1	1010		Dead bird found. An american arctic tern was controlled breeding at the age of 34 years (75).	10
Sterna albifrons	DFH	80303320	23-11	23-11	1	8200		Controlled as breeding male in 15 years.	71
Chlidonias niger	DKC	8045639	20-11	21-00	1	2010		Found dying, sent to Zool. Museum Copenhagen.	73
Uria aalge	DFH	337223	32-00	32-01	1	8200			6
Alca torda	GBT	AT 73954	30-00	30-01	1	3010		Reringed M 23170, bird found (not fresh), dead ca. 1 month.	10 74
Cepphus grylle	GBT	EC 43291	22-10	22-11	1	8290		Nesting, reringed EN 55396, colour mark record.	74
Fratercula arctica	GBT	AT 90333	29-10	29-11	1	8200		Reringed ER 36502.	10
Columba oenas	HES	930722	12-07	12-07	1	2100			56
Columba palumbus	GBT	339579	15-10	15-10	1	2100			2 74
Streptopelia decaocto	GBT	ED 04205	16-10	17-09	2	1010	+	Dead bird found.	43 74
Streptopelia turtur	NLL	167353	13-01	13-02	1	2100			5
Cuculus canorus	DFH	6023421	12-10	12-11	3	2010			6
Tyto alba	NLL	102460	17-10	17-11	2	2010			2
Otus scops	ILT	EE 2878	06-09			8200			16
Bubo bubo	SFH	E 1849	22-03	22-04	1	3100			52
Surnia ulula	SVS	9038484	08-03	08-03	1	2431			30
Strix aluco	GBT	AJ 95106	21-05	21-06	3	2760	+	Freshly dead, poor condition, emaciated.	74
Strix uralensis	SFH	D 47397	23-10	23-10	1	2760	+	Found starving to death, bird and ring sent to Zool. Museum.	50
Strix nebulosa	SVS	9209567	15-10	15-10	1	2400		Male.	1
Asio otus	SFH	H 7998	16-10	17-02	2	3100			52
Asio flammeus	DFH	3066160	20-09	20-09	1	2010			6
Aegolius funereus	DFH	4009133	08-11	08-11	1	8200			6
Caprimulgus europaeus	GBT	XJ 86805	10-11	11-11	4	8200		Breeding female at	4 74
Apus apus	HES	605769	21-00	21-00	1	8200		Breeding.	2
Halcyon smyrnensis	ILT	D 8661	05-06			4500			16
Alcedo atthis	BLB	N 18630	21-00	21-00	1	8200			21
Ceryle rudis	ILT	F 160	03-11		4	8200			16
Coracias garrulus	PLW	E 30905	09-01	09-02	3	2100			2
Jynx torquilla	SVS	3227796	04-11	05-11	4	8200			30
Picus canus	DFH	5021520	05-03	05-05	3	2010			6
Picus viridis	GBT	DS 73653	14-11	15-00	3	1400	+	Male dead, road casualty.	33 74
Dryocopus martius	SFH	S 76953	13-07	13-07	1	2630		Killed by Martes martes.	41

1	2	3	4	5	6	7	8	9	10
Dendrocopos major	GBT	CV 01295	10-08	11-07	4	8200		Male nesting.	74
Dendrocopos leucotos	SVS	4185657	08-00	09-00	4	8290		Male breeding.	1
Dendrocopos minor	HES	E 893552	07-00	07-03	3	8200		Female.	11
Picoides tridactylus	SFH	A 275614	05-03	06-03	4	1100		Male.	52
Lullula arborea	GBT	VC 1823? last digit 4,5 or 6.	04-11	04-11	1	8290		Nesting colour mark record.	4 74
Alauda arvensis	GBT	BA 87519	10-00	10-01	3	2610	+	Taken by cat.	74
Riparia riparia	SUM	G 164713	07-10	07-10	?				5
Hirundo rustica	GBT	A 292045	09-07	09-09	3	2460		Male, freshly dead entered barn, sexed male.	43 74
Hirundo daurica	ILT	X 85896	06-00	09-00	6	8200		Retrapped many times	16
Delichon urbica	DFR	G 68114	14-05	14-05	1	2100			2
Anthus trivialis	SVS	2452196	07-03	08-02	4	2100			1
Anthus pratensis	DKC	981002	07-08	07-08	3	2100			2
Anthus cervinus	ILT	A 1202	03-11	04-06	4	8200			16
Anthus petrosus	SVS	1977863	08-11	09-10	4	8290		Male.	1
Motacilla flava	SVS	2407355	08-08	08-10	2	2431	+	Probably hit wire.	1
Motacilla cinerea	DFR	BO 87112	07-10	08-00	2	8200		Breeding.	23
Motacilla alba	GBT	AE 95672	09-10	10-01	3	8200			5
Pycnonotus xanthopygos	ILT	CC 2979	07-10	08-09	4	8200		Male	16
Bombycilla garrulus	SUM	F 311279	12-06	13-05	4	?			2
Cinclus cinclus	SFH	PT 34971	10-01	10-07	5	8200		Female.	24
Troglodytes troglodytes	NLL	S 132964	05-08	06-00	2	2010			2
Prunella modularis	GBT	B 660173	09-02	09-10	4	8200		Female.	4
Cercotrichas galactotes	ILT	B 9316	06-00	07-00	4	8200			16
Erithacus rubecula	PLG	HA 240125	17-01	17-03	3	2200			61
Erithacus rubecula	DFH	8306378	12-10	13-03	2	8200			6
Luscinia luscinia	DFH	80134942	08-10	08-10	2	2010			6
Luscinia megarhynchos	ESM	M 45674	08-07	09-09	4	2010	+		57
Luscinia s. svecica	SVS	2625610	08-08	08-10	2	2440	+		1
Luscinia s. cyanecula	ESM	N0074112	10-10	11-05	5	8200			58
Phoenicurus ochruros	NLA	S 128312	09-10	10-01	2	2200			25
Phoenicurus phoenicurus	FRP	12020	09-05	09-05	1	2200			5
Saxicola rubetra	SFH	K 50898	05-02	05-02	1	2190			52
Saxicola torquata	DFH	9X36806	08-10	08-10	2	2010			6
Oenanthe oenanthe	GBT	BJ89441	09-04	09-07	3	2100			74
Oenanthe hispanica	ILT	B 2337	04-11			8200			16
Turdus torquatus	ESM	3015231	08-09	09-01	3	2010		Found dead 2000 m. a. s.	49
Turdus merula	DFH	7224339	16-02	16-09	5	2440		Male.	6
Turdus pilaris	SFH	A 44583	17-11	18-00	1	1100			2
Turdus philomelos	DKC	8664866	16-04	17-05	4	2400	+	Thrush killed by traffic.	73
Turdus iliacus	SVS	4039201	09-06	09-06	1	2200			1
Turdus viscivorus	HES	F 24020	09-11	10-04	2	2100			56
Cettia cetti	ILT	X 8320	07-00	07-01	3	8200			16
Prinia gracilis	ILT	Z 19140	06-00	06-05	3	8200			16
Turdoides squamiceps	ILT	CC 10151	13-06	13-09	1	8200		Observed.	16
Locustella naevia	SFH	V 365756	03-10	04-09	4	2441			52
Locustella luscinoides	ESI	58354	07-03	07-05	3	8200			58
Acrocephalus	ESM	R 4560	06-11	08-04	4	1100			58
Acrocephalus	SFH	V 334186	08-00	08-00	3	8200			50
Acrocephalus dumetorum	SFH	J 680164	06-10	07-09	4	8200			52
Acrocephalus palustris	GBT	A 205110	08-00	09-00	4	8290		Male, colour mark record, seen each year 1988-92.	4 74

1	2	3	4	5	6	7	8	9	10
Acrocephalus scirpaceus	GBT	B 012030	12-09	12-10	2	8200		Female, controlled with brood patch, retrapped in three years.	53 74
Acrocephalus stentoreus	ILT	B 23675	09-07	10-07	3	8200			16
Acrocephalus	DDH	80532535	08-11	10-00	4	8200			31
Hippolais pallida	ILT	X 25508	07-11			8200			16
Hippolais polyglotta	ESM	M 36622	07-08	08-10	4	8200			58
Hippolais icterina	DFH	9G 77549	09-01	10-10	4	2100			6
Sylvia nisoria	SVS	2310578	10-10	11-11	4	8200		Male.	1
Sylvia curruca	SVS	1489573	05-11	06-10	4	8200		Male.	1
Sylvia communis	GBT	AS 77162	07-07	08-08	4	2190	+	Male.	74
Sylvia borin	DFH	0393985	13-03	14-02	4	2100			6
Sylvia atricapilla	DFH	9M 68522	11-03	11-04	2	2100			6
Phylloscopus sibilatrix	DFH	AL 5318	10-03	10-03	1	7200			6
Phylloscopus collybita	ESI	2825	05-09	06-02	2	7200			58
Phylloscopus trochilus	DDH	90007848	10-01	10-03	2	2010			42
Regulus regulus	GBT	1J2877	04-09	05-01	3	1440		Male, hit glass = window.	53 74
Muscicapa striata	SFH	J 978561	11-01	11-00	1	2610		Taken by cat.	27
Ficedula albicollis	DFR	K 265662	07-10	07-11	1	7200			2
Ficedula hypoleuca	SFH	J 208787	08-05	08-05	1	2200		Killed in Guinea.	13
Panurus biarmicus	GBT	E 296078	06-04	06-05	3	8200		Male, controlled twice more at finding place.	4 74
Turdoides squamiceps	ILT	CC 10151	13-06					Observed.	16
Aegithalos caudatus	DKC	9398461	09-10	10-09	4	8200		Controlled four different years.	73
Parus palustris	SVS	AC 18265	11-05	11-11	4	2640	+	Ring found in pellet of Glaucidium passerinum, taken between april and september 11 years after ringing.	30
Parus montanus	GBT	JE 10783	10-04	11-04	4	8200			74
Parus cinctus	SFH	J 959031	08-11	08-11	1	8200			28
Parus cristatus	SFH	J 951734	10-09	11-07	4	8200			32
Parus ater	GBT	KB 35969	08-09	09-04	4	8200		.	67 74
Parus caeruleus	GBT	JJ 00360	12-03	14-07	6	1460		Dead, entered building (age of corpse not stated).	67 74
Parus major	DFH	9222933	14-11	15-05	4	2010			6
Sitta europaea	HES	271514	08-10	09-04	2	8200			2
Sitta neumayer	ILT	B 10155	04-11	06-00	4	8200			16
Certhia familiaris	GBT	3B6601	07-11	08-01	3	8200			51 74
Certhia brachydactyla	HES	377457	04-03	04-08	2	2010			55
Remiz pendulinus	SVS	AC 43445	06-08	06-08	1	8200		Nesting male.	30
Nectarinia osea	ILT	Z 36034	03-11		4	8200			16
Lanius collurio	SFH	P 466455	07-09	07-09	1	2100			72
Lanius excubitor	DFH	7361132	06-06	06-06	1	2010			6
Lanius senator	DFH	7367101	05-08	05-08	1	2410			6
Lanius nubicus	ILT		04-04			2010			16
Garrulus glandarius	SVG	C 37195	16-10	16-10	1	2431	+		1
Perisoreus infaustus	SFH	B 89217	17-10	17-11	1	8200			7
Pica pica	GBT	ED 45304	15-00	15-00	1	2500	+	Found with broken wing, bird brought to BTO.	68 74
Nucifraga caryocatactes	SVS	5096906	15-09	16-03	2	8200			30
Corvus monedula	DKC	608653	19-11	19-11	1	2400			73
	SVS	6066625	19-06	19-08	3	2500	+		30

1	2	3	4	5	6	7	8	9	10
Corvus frugilegus	GBT	FS 21792	19-08	20-06	5	2100	+		10
Corvus corone	DKC	485110	16-10	16-11	1	2010	+		73
Corvus corax	SFH	D 21783	20-04	20-05	1	1110			52
Sturnus vulgaris	DKC	8552412	22-11	22-11	1	2010	+	Controlled at finding place also 2 years after ringing.	73
Passer domesticus	DKC	9412172	19-05	19-09	3	2010	+	Female.	73
Passer montanus	FRP	417586	12-08	13-01	2	2010			5
Passer moabiticus	ILT	A 3945	06-11	07-03	3	1010			16
Fringilla coelebs	NLL	F 19734	13-08	14-00	2	2010			2
Fringilla montifringilla	SVS	2197911	14-02	14-08	4	8200		Male.	1
Serinus serinus	ESI	66617	07-03	07-03	2	8200			58
Serinus syriacus	ILT	X 82646	05-11	06-11	4	1010			16
Carduelis chloris	DFH	8332527	11-02	11-07	2	2500		Found sick.	6
Carduelis carduelis	DFH	8719527	10-11	11-09	4	8200			6
Carduelis spinus	SUM	S 730968	13-03	13-06	3	8200		Male.	29
Carduelis cannabina	FRP	1192972	09-04	09-05	3	2010			5
Carduelis flammea	GBT	C 650722	08-05	08-08	3	2010	+	Male, freshly dead found.	53 74
Loxia curvirostra	SVS	YL 2605	05-10	06-10	4	2100			1
Carpodacus erythrinus	SFH	P 81988	08-11	08-11	1	8280		Female.	52
Pyrrhula pyrrhula	DFH	8983918	12-04	12-07	2	2010			6
Coccothraustes coccothraustes	DFH	7241335	11-10	12-07	4	2010			6
Plectrophenax nivalis	GBT	VC 96613	06-00	06-07	4	8290		Female, colour mark record.	53 74
Emberiza citrinella	DFH	80438231	12-07	13-00	2	2640		Tot, erbeutet.	6
Emberiza hortulana	SFH	K 518926	04-06	04-07	3	1100		Male.	52
Emberiza hortulana	NOS	E 311117	04-11	05-10	4	8200		Male.	77
Emberiza aureola	SFH	P 105089	06-11	06-11	1	8200		Female.	52
Emberiza schoeniclus	NLA	S 9774	10-07	11-03	4	2200			2
Emberiza melanocephala	ILT	B 71121	09-00	10-00	4	8200			16
Miliaria calandra	ESM	Y 5823	09-10	09-10	1	2100			57

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The address list published in the first issue of the newsletter has been welcomed by many colleagues, and widely used in our centres; an updated list is therefore proposed also in this second issue. Gathering all details especially in new phone and fax numbers has not been always easy, and we apologise already for any possible mistake. From the first issue, it is quite interesting that a much higher percentage of schemes is now on e-mail, allowing much faster and efficient contacts. All schemes are kindly requested to check their addresses and send corrections, as well as new numbers or e-mail addresses as these change.

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Individual life histories can only be followed in marked birds, gathering information also on longevity records. Roland Staav, from the Stockholm ringing scheme, has been collecting longevity data for many years, and here he offers the most updated list after the one by Rydzewski, which appeared on 'The Ring' in the 70ies. Given the interest of these data, all schemes are kindly requested to help Roland in updating the list, informing him on the national records as they come through new recoveries. This would allow Roland to publish additions to the list in future issues of the newsletter.

LONGEVITY LIST OF BIRDS RINGED IN EUROPE

By Roland Staav

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Longevity lists were in the seventies published several times in THE RING compiled by W. Rydzewski. These lists were in fact fundamental for the present work. Over the last decades much higher ages have been proved for several species and now the time has come to publish an up-to-date list of the oldest known individuals so far. The list now covers 284 European bird species. There are however many more recoveries of old birds hidden in the archieves of the ringing schemes.

I want to express my gratitude to those schemes which responded to my request in the EURING meeting in Estonia in April 1995, when I presented a preliminary list. This is a work which never will be completed, as many species are ringed in small numbers and the recoveries are very few.

If you have complementary additions to the list, please send me copies with all ringing details.

BLB	Belgium Bruxelles	NLA	Netherlands Arnhem
DDH	Germany Hiddensee	NLL	Netherlands Leiden
DFH	Germany Helgoland	NOA	Norway Ås
DFR	Germany Radolfzell/Rossitten	NOO	Norway Oslo
DKC	Denmark, Copenhagen	NOS	Norway Stavanger
ESA	Spain Aranzadi	PLG	Poland Gdansk
ESI	Spain, Icona	PLW	Poland Warsaw
ESM	Spain Madrid	SFH	Finland Helsinki
FRP	France Paris	SUM	Russia Moscow
HES	Helvetia Sempach	SUR	Latvia Riga
HGB	Hungary Budapest	SVG	Sweden Gothenburg
ILT	Israel Tel Aviv	SVJ	Sweden Jägareförbundet
ISR	Iceland Reykjavik	SVS	Sweden Stockholm

Explanations to the columns:

1) Species
2) Ringing Scheme:
3) Ring number
4) Time elapsed between ringing and recovery in years and months.
5) Minimum age according to status at ringing.
6) Age recorded at the time of ringing: 1= pullus, 2= fully grown, 3 hatched during calendar year of ringing, 4= hatched before

18) Op het vinketouw nr. 70. Arnhem mars 1993.
19) Letter from Torben Jensen, Copenhagen.
20) Op het vinketouw Arnhem nr. 67 june 1992.
21) Op het vinketouw Arnhem nr. 68 sept. 1992.
22) Björn Helander (in litt.)
23) Schlenker R., 1989 Bemerkenswerte Ringfunde aus dem Arbeitsbereich der Vogelwarte Radolfzell. Die Vogelwarte, 35: 159-162.
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25) Op het vinketouw nr. 64. Arnhem sept. 1991.
26) Op het vinketouw nr. 63 Arnhem june 1991.
27) Ringmärkningsbyråns meddelanden nr. 111 Helsingfors december 1993.
28) Ringmärkningsbyråns meddelanden nr. 109 Helsingfors december 1992.
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35) Ringmärkningsbyråns meddelanden nr. 110 Helsingfors september 1993.
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39) Ringmärkningsbyråns meddelanden nr. 100 Helsingfors december 1989.
40) Ringmärkningsbyråns meddelanden nr. 107 Helsingfors december 1991.
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44) Op het vinketouw nr. 78 Arnhem september 1995.
45) Op het vinketouw nr. 77 Arnhem april 1995.
46) Op het vinkeyouw nr. 59 Arnhem june 1990.
47) Bulletin a l'Usage du Bageur VI nr. 2-3 april-july 1991.
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50) Ringmärkningsbyråns meddelanden nr. 116 Helsingfors september 1996.
51) Mead C. J., & J. A. Clark, 1988 Rep. on Bird Ring. in Britain and Ireland for 1987. Ring. & Migr., 9 (3): 169-204.
52) Database of finnish ringing recoveries. Helsingfors.
53) Clark J. A. et al., 1996 - Rep. on Bird Ring. in Britain and Ireland for 19 94. Ring. & Migr., 17 (1): 57.
54) Ringfund- Rosinen 2 Sempach december 1990.
55) Glutz U., 1964 - Höchstalter schweizerischer Ringvögel. Der Orn. Beobachter, 61: 106-127.
56) Letter from L. Jenni august 1996.
57) Fernandez-Cruz M., 1983 Capturas de aves anilladas en Espana. Informes números 17-22 (anos 1973-1978). Ardeola, 29: 33-164.
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76) Letter from T. Berg feb. 1998.
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The potential for co-ordinated projects carried on by large numbers of ringers over wide geographical areas represents one of the main features of the EURING community. In recent years, constant mist-netting has been shown to be a very useful tool to monitor bird populations on the basis of mark-recapture analyses. In this article, Dawn Balmer and Will Peach illustrate the aims, organisation and results of the British CES scheme. This very interesting approach has already been introduced in the States through the local MAPS project, and might soon become the basis for a larger EURING initiative.

CONSTANT EFFORT RINGING IN BRITAIN AND IRELAND

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Background

The British Trust for Ornithology's Constant Effort Sites (CES) Scheme uses standardised mist-netting at more than a hundred study sites to monitor the populations of a range of common passerines. The scheme was initiated in 1983 as a pilot project with a volunteer organiser. Following an evaluation of the scientific potential of the CES Scheme (Baillie *et al.* 1986) the BTO took over full responsibility for the project. The popularity of the scheme has continued to grow and in 1996, 120 sites were operated throughout Britain and Ireland.

The CES Scheme monitors:

- changes in adult and juvenile abundance
- productivity (proportion of young birds in the catch)
- adult survival rates (from between-year recaptures).

The CES Scheme forms part of the BTO's Integrated Population Monitoring (IPM) Programme, which incorporates the Common Birds Census, Breeding Bird Survey, Nest Record Scheme and national Ringing Scheme, and aims to identify the causes (natural and anthropogenic) of population changes affecting breeding birds in Britain and Ireland.

Methods

Each year CES ringers are asked to make twelve visits to their site spread evenly between early May and late August. A set of standard mist nets is erected in the same positions on each of the twelve main visits. The total length of standard netting is decided by the ringer and is typically 100-200m. Ringers are asked to operate their set of standard nets for at least six hours on each visit and to standardise their chosen duration. A typical regime would be to begin netting at dawn and continue until 1100hrs on each of the twelve visits. The scheme has some flexibility and permits additional nets to be used during main visits, and also extra visits.

Most constant effort sites are located in either wet or dry scrub, reedbeds or deciduous woodland. Sites in coniferous woodland are not accepted because rapid tree growth is likely to cause short-term changes in catching efficiency and the local bird community. Potential constant effort sites are proposed by volunteer ringers, and are generally accepted into the scheme as long as they are located in suitable habitats and are not considered to be undergoing major successional changes. A quantitative system of habitat recording was introduced in 1995 and all CES ringers are asked to record habitat in the first year they operate their site, and then at regular intervals thereafter.

Data collection and routine analysis

For each bird trapped on a CE site the following information is computerised: ring number, species, age, sex (in the case of adults), date(s) of capture and an additional net code to indicate whether the bird was trapped in a standard CES net or in an additional net. No information on biometrics, moult or brood patch is currently collected, although this may be collected by the ringer.

CES capture data are submitted either on paper forms or on computer disc. Paper submissions are computerised and checked by BTO staff. A package of computer programs for ringers (B-RING) enables ringers to computerise their ringing and recapture data and to carry out most of the paperwork required for administrative purposes. In 1996, data from 70% of CE sites were submitted on floppy disc.

Between-year changes in the catches of adults and young, and in the percentage of young birds in the overall catch are published annually in *BTO News* (Balmer & Peach 1997). The scheme's newsletter *CES News*, is sent out each year to all CES ringers and presents recent results and research.

Trends in adult and juvenile abundance

Using changes in standardized catch sizes we are able to measure long-term changes in the abundance of adult and juvenile birds. Long-term declines in catches of songbirds are of much greater conservation concern than annual fluctuations linked to particular weather events. For most species long-term changes in CES adult catches are very similar to changes in the numbers of territories counted on Common Birds Census plots, suggesting that standardised mist-netting is a reliable method for assessing extensive changes in songbird populations. In Britain & Ireland the largest increases in adult catches have been for Robin, Wren, Greenfinch and Long-tailed Tit and the largest decreases have been for Linnet, Redpoll, Spotted Flycatcher, Yellowhammer, Reed Bunting and Willow Warbler. Examples of trends in CES catches are presented for Willow Warbler and Reed Warbler (Fig. 1).

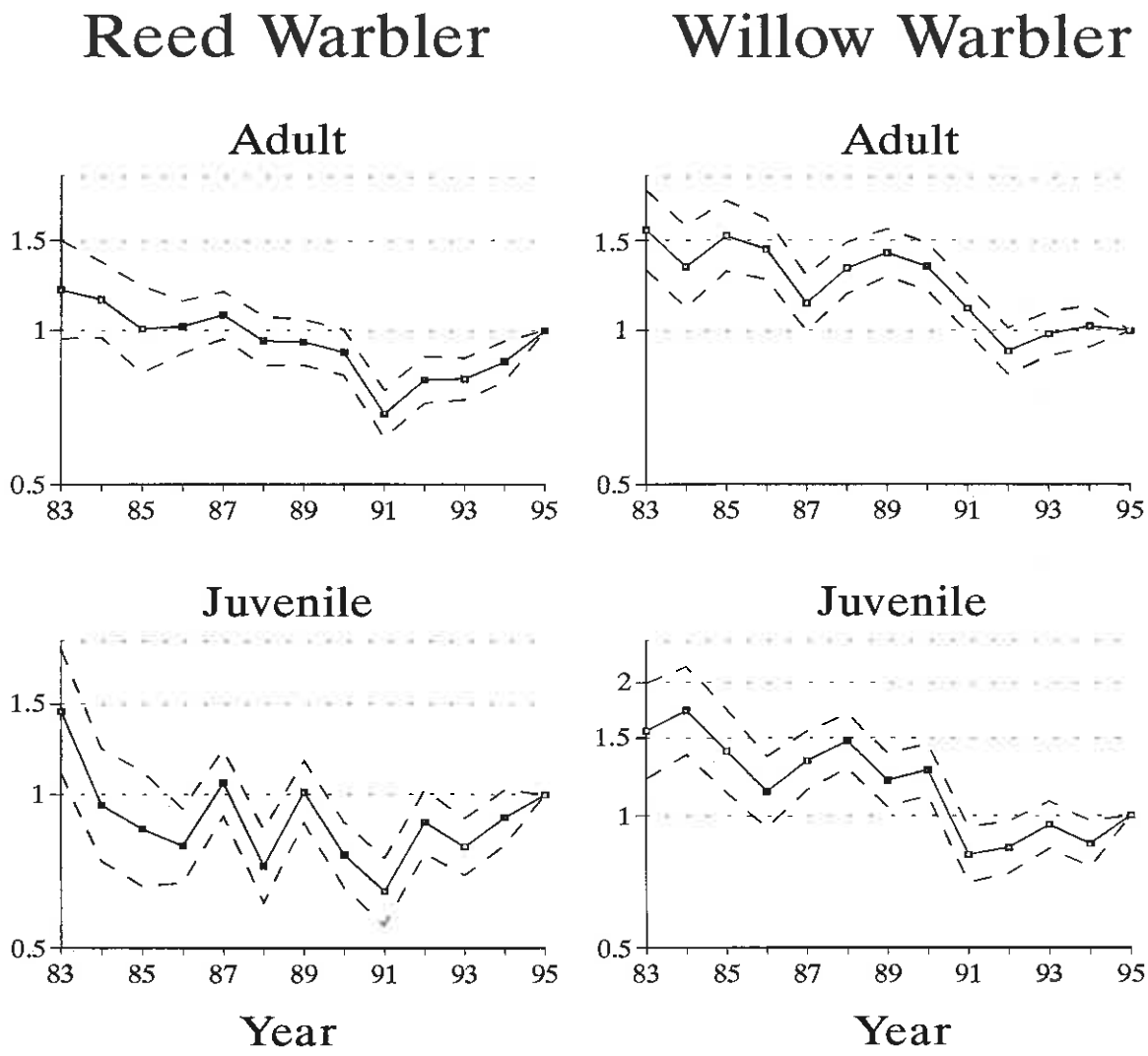

Figure 1. Long-term trends in CES catches for Reed Warbler and Willow Warbler.

Trends in productivity

The percentage of juveniles in the catch is a good indicator of overall breeding success. Several intensive studies have shown that annual catches of young birds in CES mist-nets do accurately reflect local breeding success (e.g. du Feu & McMeeking 1991). Long-term trends in the proportion of juveniles in CES catches are presented for Long-tailed Tit and Dunnock (Fig. 2).

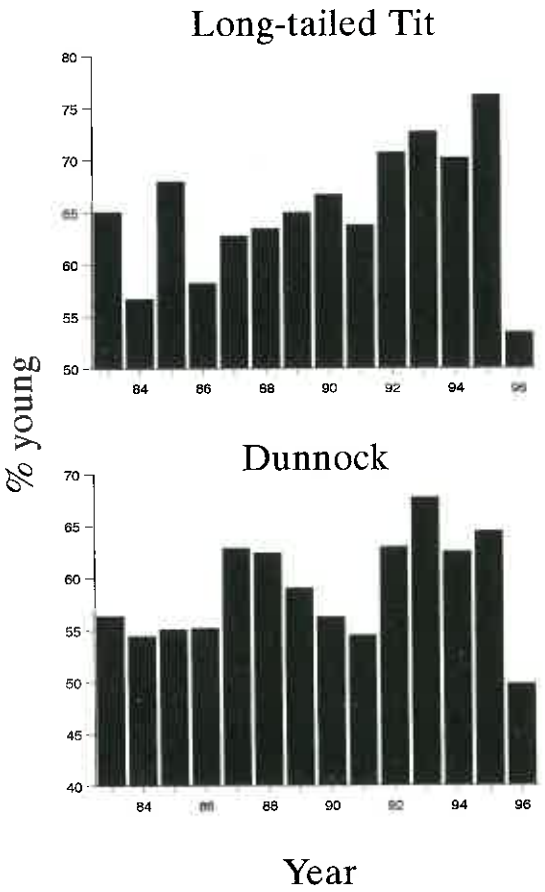

Figure 2. Long-term trends in the percentage o young birds in CES catches for Long-tailed Tit and Dunnock.

Poor weather during May 1996 resulted in the poorest breeding season ever recorded by CES ringing, particularly for Dunnock, Robin, Chiffchaff, Long-tailed Tit, Great Tit and Blue Tit.

Adult survival rates

Many passerines show strong site fidelity to breeding sites in successive breeding seasons, so regular sampling of breeding birds can be an effective means of generating between-year recaptures which can be used to estimate survival (return) rates of adult birds. Mark-recapture data from single CE sites are often quite sparse and survival estimates for single sites often lack precision (Peach 1993). Recent advances in analytical techniques allow mark-recapture data to be pooled across CE sites which usually leads to considerable improvements in precision. Examples of adult survival rates from combined datasets are shown in Table 1.

Table 1. Adult survival rates calculated from retraps at CE sites.

Species	Annual adult survival	Standard Error (%)
Wren	31.8	6.8
Dunnock	42.2	4.0
Blackbird	56.6	3.6
Reed Warbler	49.6	2.6
Lesser Whitethroat	49.2	6.4
Whitethroat	43.7	5.4
Garden Warbler	71.5	6.3
Blackcap	44.3	5.7
Chiffchaff	38.0	8.6
Willow Warbler	37.1	5.0
Treecreeper	47.7	5.0
Chaffinch	48.9	13.1

Using CES data we have been able to demonstrate clear relationships between survival rates of some long-distance migrants and annual rainfall in the African winter quarters (Peach *et al.* 1991) and between survival rates of resident species and winter weather (Peach *et al.* 1995a).

Perhaps the best example of how retrap data from CE sites can be used is for the Willow Warbler (Peach *et al.* 1995b). Until the late 1980s the Willow Warbler was one of the most stable breeding species monitored by the BTO Common Birds Census. However, during the early 1990s there was a dramatic reduction in the numbers of breeding birds counted on CBC plots. The decline was much more severe in southern Britain (47% decline) than in northern Britain (7% decline). A detailed analysis of nest record cards showed that there were only minor changes in the breeding success of Willow Warblers during this period, and these were far too small to account for the huge reduction in breeding pairs. Annual survival rates of adult Willow Warblers were calculated from retraps at

18 constant effort sites and one colour-ringing study. The results showed that in northern Britain, survival rates of adult birds averaged 39% and did not change during the period 1987-93. But in southern Britain survival rates of adults crashed from a healthy 45% in 1988 to just 24% in 1992 (Fig. 3). This huge decline in survival coincides with, and probably caused, the population decline in southern Britain. When survival rates improved in 1993, the number of breeding birds on CBC plots stopped declining.

Increased mortality amongst adult Willow Warblers suggests that problems in the African winter quarters have probably caused the large decline in breeding birds.

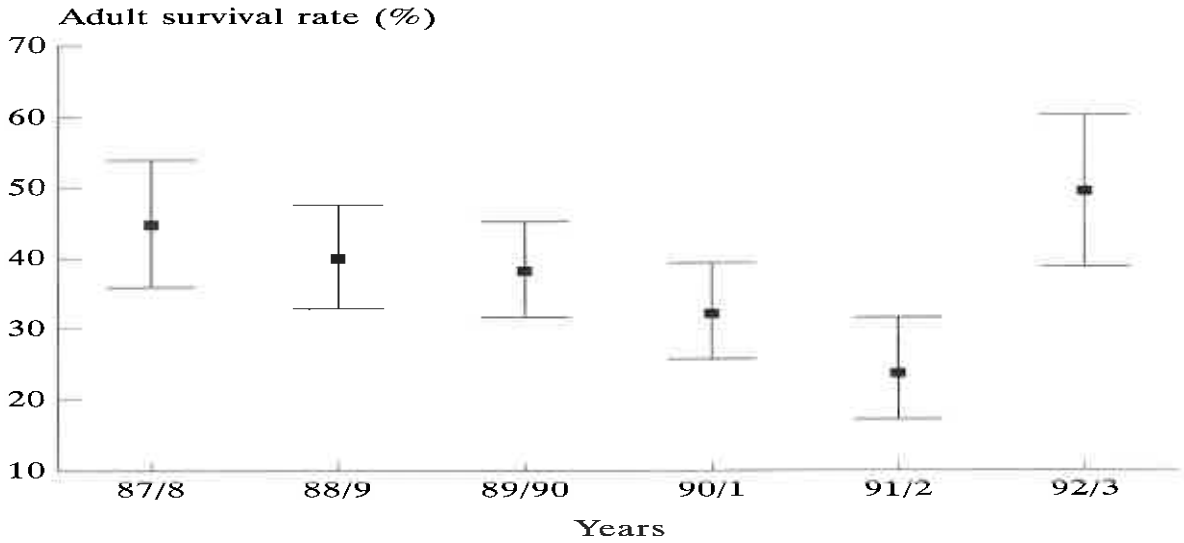

Figure 3. Annual adult survival rates (with 95% confidence limits) of Willow Warbles ringed and recaptured at 12 CE sites in southern Britain.

Other schemes

CES-type ringing projects are now well established in France (Vansteenwegen 1997), Finland (Haapala & Saurola 1995), The Netherlands and particularly in North America where there are currently more than 400 (MAPS) sites (Burnham 1995). We believe the scientific credibility of constant-effort mist-netting is now well established and we urge other ringing schemes to seriously consider setting up similar monitoring projects.

A national scheme would not need 100 sites to be useful; 15-30 sites could provide high quality information for a range of species.

Further information on the BTO CES Scheme (instructions, articles and newsletters) are available from Dawn Balmer at BTO, The Nunnery, Thetford, Norfolk, UK, IP24 2PU. (e-mail dawn.balmer@bto.org).

Further Reading

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EURING PROJECTS

THE EURING SWALLOW PROJECT: RESULTS FROM THE FIRST PILOT YEAR

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The EURING Swallow Project has been launched in 1997 as a first pilot year. The project has stimulated a large interest among European ringers, and intense research activities have been carried on. Being an experimental phase, this first year has allowed checking field methods and protocols, and many colleagues have offered their comments and suggestions for further improving the field manual. This has been revised and widely circulated by Lukas Jenni. A brief newsletter has been produced, and its contents will appear in the section below. Brief national reports on the activities in Finland, Slovenia and Italy will also be presented.

In a first pilot year which has been quite a success already, a very intense activity has taken place in many European countries, where large numbers of birds have been ringed, following our detailed field protocols. This brief report offers a general overview of the geographical coverage obtained during 1997, of the kind of data collected by the different schemes, and of the coverage for 1998.

Geographical coverage 1997: despite being a pilot year, and despite also the fact that the very detailed field manual was distributed fairly late with respect to the onset of the breeding season, the project got a very good geographical coverage.

A total of 17 different countries (Fig. 1, Tab. 1) could join the project, with a very interesting geographical scatter, offering a fairly complete 'transect' across western and central Europe.

Data gathered in 1997: among the active countries, 10 carried on ringing activities both during the breeding season and the pre-migratory phase (Fig. 2), while ringing was concentrated during the breeding season in 3 countries, and during the roost period in 4 more countries.

An estimated number of over 300 ringers took part into the field activities, positively confirming the large interest stimulated by this project in Europe.

From the data available so far, a grand total of 115,855 swallows have been ringed (Tab. 1), quite an impressive figure for a starting year, with a huge potential of information.

Breeding biology: it is particularly interesting that over 30,000 birds have been ringed at the colonies. Ringing during the breeding season is particularly important within this project, as it will unable to investigate aspects related to geographical variability in reproductive parameters, natal dispersal, migratory routes and winter quarters of birds of known origin. This large coverage of colonies will also offer possibilities to stimulate some of the most interesting aspects related to the breeding biology part of the project, as inter- and intra-population genetic variability.

Pre-migratory phase: the pre-migratory strategies adopted by the different swallow populations are another focal aspect for the project. In 1997 approximately 80 different roosts were covered, many of them during the whole season, and on a regular weekly basis, as recommended by the protocols.

Over 85,000 swallows were ringed and the data have already partly been analysed. Duration of the roost phase, accumulation of fat reserves and physical conditions of birds leaving on their autumn migration are all

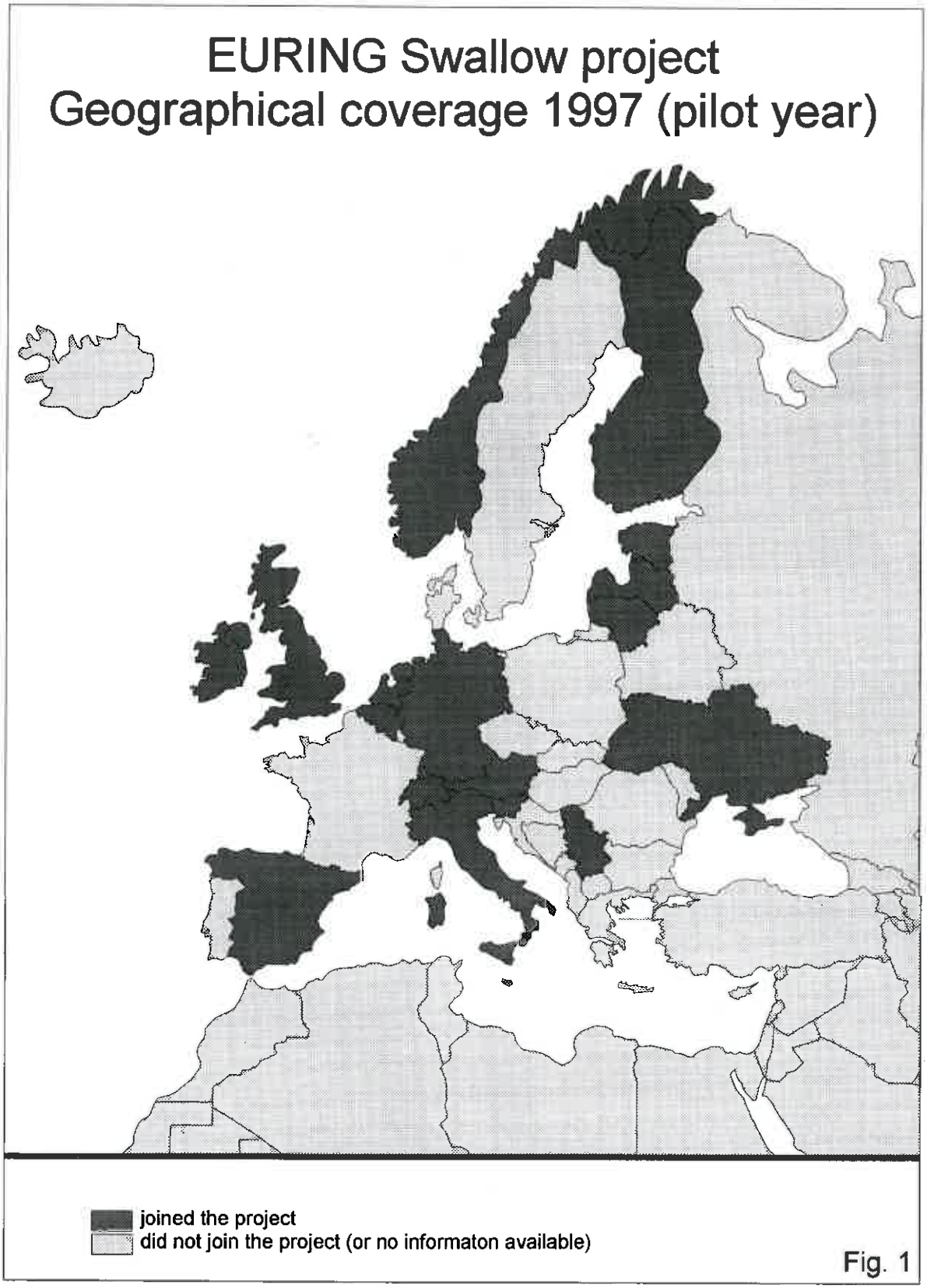
EURING Swallow project
Geographical coverage 1997 (pilot year)
joined the project
did not join the project (or no informaton available)

Fig. 1

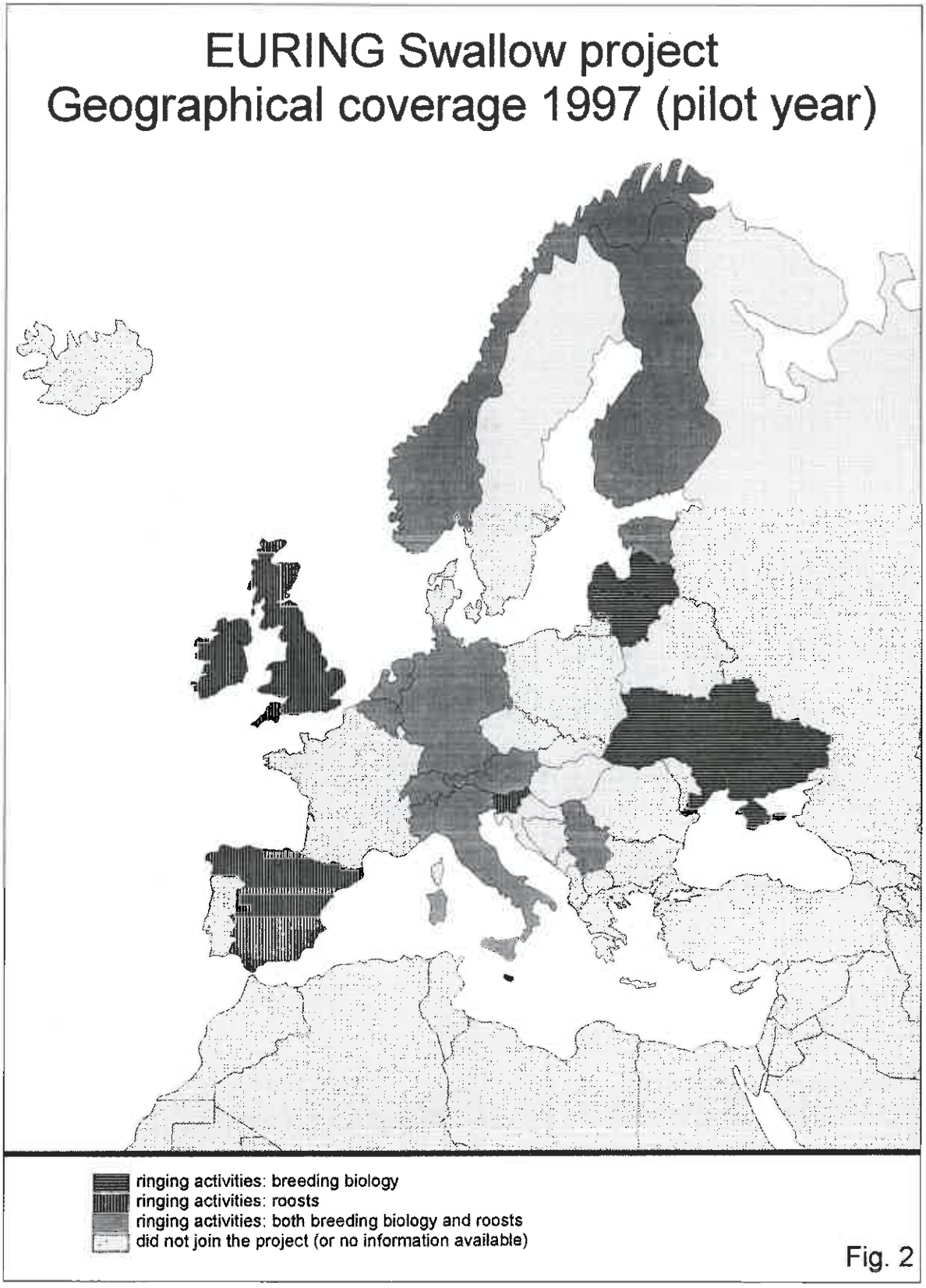
EURING Swallow project
Geographical coverage 1997 (pilot year)
ringing activities: breeding biology
ringing activities: roosts
ringing activities: both breeding biology and roosts
did not join the project (or no information available)

Fig. 2

COUNTRY	Chicks ringed	Adults ringed	Swallows ringed at colonies	Roosts visited	Swallows ringed at roosts	Overall total	Number of ringers
Belgium	5000	0	5000	?	5000	10000	30
Estonia	500	200	700	?	100	800	?
Finland	2839	295	3134	11	7371	10505	112
Germany - Austria	2206	277	2483	6	2513	4996	18
Holland	5000	1000	6000	5	?	6000	15
Italy	4063	740	4803	32	28908	33711	70
Latvia	230	0	230	-	-	230	?
Lithuania	278	0	278	-	-	278	6
Malta	-	-	-	4	1416	1416	7
Norway	3000	0	3000	5	7000	10000	?
Slovenia	-	-	-	1	21042	21042	20
Spain	-	-	-	4	8168	8168	?
Switzerland	1580	314	1894	8	2011	3905	?
Ukraine	677	129	806	-	-	806	?
United Kindom	-	-	-	2	498	498	2
Yugoslavia	2000	500	2500	6	1000	3500	20
Totals	27373	3455	30828	84	85027	115855	300

Tab. 1 - List of the seventeen countries which joined the project with some brief results from the first year of activity. A total of 115,855 Swallows have been ringed.

aspects which have been investigated. Such large numbers of ringed birds will also help defining the migratory routes followed by the different geographical populations of swallows across Europe and towards Africa.

Given the fact that such an intense effort in swallow ringing had never been produced, significant numbers of recoveries from the winter quarters are to be expected, which will contribute in better describing the distribution of the main roosts in Africa, as a key issue also for swallow conservation.

Future prospects: the first results originating from the analyses of data collected in 1997 will undoubtedly stimulate further interest in swallow studies in Europe and beyond. In fact, there seems to be at present a positive interest both from the U.S. and Japan to join the project; the Japanese Ringing Scheme in particular is actively working on the swallow already since few years.

The EURING Swallow Project at the XXII I.O.C.: a full symposium has been devoted to our swallow project during the International Ornithological Congress in Durban (South Africa - August 1998), convened by Prof. Dr. Arie van Noordwijk (The Netherlands) and Dr. Terry Oatley (South Africa). The symposium, titled 'The involvement of amateur ringers in population studies: The EURING Swallow Project', took place on August 17th 1998.

Five talks were offered during the meeting, which are listed here, followed by a brief abstract:

1. **The EURING swallow project: Amateur ringers in population studies**, by Arie van Noordwijk.

The Dutch Swallow project was started as a pilot and demonstration project for a new type of ringing concentrating on breeding populations of single species and documenting variation in breeding, survival and dispersal as main questions. In the later extension into a EURING project, the pre-migratory phase and the wintering biology have been included. Over the next decade, the enormous potential work force of amateur ringers could lead to a new scale of studying the population biology of species in which studying variation among individuals within populations is combined with small and large-scale geographical comparisons.

2. **The EURING swallow project: a ringer's perspective**, by Bennie van den Brink & Arie van Noordwijk

During the last decades the population of the Barn Swallow *Hirundo rustica* has decreased in their European breeding grounds. This decrease varies among regions and countries. To study the causes, the Dutch Ringing Scheme initiated a research program in which amateur ringers are involved. The aims are to collect data on annual production of young, dispersal of offspring, site fidelity and the number of breeding pairs. Regions were chosen to include combinations of three contrasts: rich versus poor soil fertility, wet versus dry and large scale versus small scale agricultural land use. In each region we follow 50 to 150 pairs. There is substantial variation in fledgling production per year and per region, dispersal of first breeders, site fidelity of adult birds in later years. This project involves many amateur ringers in a single species study and thus combines the large data-gathering capacity of amateurs with professional design and analyses.

3. **Fat accumulation in pre-migratory roosting Barn Swallows in Europe**, by Andrea Pilastro & Fernando Spina.

The pre-migratory roosting behaviour of the Barn Swallow allows to study the variation of fat accumulation dynamics during the season and between different geographical areas. Previous analyses of body moult progress and fat accumulation across Italy suggest that a fast fat accumulation starts when body moult is completed. Daily body mass increase is in the range of those reported for other trans-Saharan passerine migrants, suggesting the potential for Swallows to cross the Mediterranean and Sahara without substantial refuelling.

Out of the over 85,000 swallows ringed in 17 European countries during the pilot year of the EURING Swallow Project, data from 5 European Countries were available by April 1998. A total of 43,000 swallows ringed during 720 capture sessions were taken into account. Analysis of body mass variation over a wide geographical range (range=37N to 62N; 6W to 26E) suggest that migration strategies may differ between western populations (namely UK and Spain) and those passing through Central and Eastern Europe (Finland, Switzerland and Italy). In particular, an increase in body mass is observed in all five countries from the end of August, starting almost simultaneously at all latitudes.

In the second half of September adult Swallows with body mass over 24g. were recorded in UK, Switzerland, Spain and Italy, with the highest frequency observed in Italy south of 43°N. Apparently, swallows migrating through Italy accumulated more fat than those following the Iberian Peninsula, which could be very interestingly related to the different distances to overcome across ecological barriers.

4. **Barn Swallows in Africa: Effects of rainfall on body condition and speed of moult**, by Tom van der Have & Bennie van der Brink.

The long-term decrease in Barn Swallow numbers has been attributed to various factors in the breeding and non-breeding areas. Effects of rainfall on variability in body condition and rate of moult were investigated in Botswana (1993 to 1995) and Ghana (1996/97) in December to January. Rainfall varied dramatically between years in Botswana, resulting in reduced roosting habitat in 1993/94 and 1994/95, and dry periods in 1992/93 and 1994/95.

Body mass was high in 1992/93, but much lower in the other years. In 1992/93 and 1994/95 body mass decreased when rainfall ceased, and increased gradually after rainfall, which triggered termite flights. Rate of moult between years correlated with average body mass. In Ghana significant differences were found in moult index, wing length and weight between northern and southern locations and with the non-breeding population in Botswana.

It is concluded that body mass and speed of moult in Barn Swallows wintering in Botswana is the result of the interaction between rainfall, affecting food availability, and the amount of available roosting habitat, determining flight distance to foraging areas and bird density

5. **Potential and problems of large scale involvement of amateurs**, by Terry Oatley & Arie van Noordwijk.

The example of the EURING Swallow Project has been used to demonstrate the potential of the interactions between amateurs and professionals in large-scale ornithological studies. The two main areas in which there are substantial differences between amateurs and professionals are project design and data-analysis. Many amateurs enjoy the interactions with professionals and are willing to provide very many hours of first-class fieldwork. In the past, there was often a serious bottleneck in data-entry in the computer, but with the spread of micro-computers most amateurs can enter

data in the computer and send them in on electronic media.

Most amateurs are rather reluctant to participate in any sort of experimental manipulation, and moreover legal requirements in most countries would create large problems in doing so. Thus, projects that require large amounts of relatively simple data are ideal for the involvement of amateurs. In the Dutch example, the provision of a computer programme that enables the ringers to produce annual reports of their own study areas proved to be of crucial importance, which in turn is an important item in the relation with the farmers on whose farms they work.

The symposium has been a very important initiative, introducing both large-scale ringing projects and EURING to the wide audience of the I.O.C. The contributions offered during the symposium give an overview of the different aspects of the annual cycle of a long-distance migrant which can be covered through a widespread network of ringers working on common protocols based on standardised field methods.

The wider coverage which we're going to get in 1998 will further contribute to the analysis of the geographical variability in demographic parameters and migration strategies of this widespread species, which is showing negative population trends in several European countries.

Many contacts originated with African ringers thanks to the symposium, and several roosts will be covered during this winter; these complementary data from the African quarters will offer the unique possibility of monitoring the whole annual cycle of our Swallows!

THE EURING SWALLOW PROJECT IN FINLAND

By Pertti Saurola

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Finnish ringers are being very active within the swallow project, and their interest has also been stimulated through two different articles. A first one (Saurola, P. 1997. Haarapääsky, EURINGin projektilaji 1997-2001, Linnut 2: 36-41) has been meant to motivate Finnish ringers to take part in the EURING Swallow Project. The Finnish Swallow population, like some other local populations in Europe, has in fact been declining during the last decades. In total, 64,617 Swallows were ringed in Finland during 1913-1996, mostly in the southern part of the country. Since 1968, the annual total of nestlings and full-grown birds ringed varied from 209 to 955 and from 85 to 3,782, respectively. Of the ringed swallows, 215 have been found dead and 473 retrapped; in addition, 34 swallows ringed abroad have been reported from Finland. These recoveries indicate that the Finnish Swallows follow the eastern flyway trough Europe to their main wintering area in the eastern part of southern Africa. In contrast, very little can be said about survival, breeding, natal dispersal and pre-migratory strategies of the Finnish Swallows. Thus, there are very good national and international reasons to join the EURING Swallow Project.

After the first pilot year of the EURING project, when over 10,000 birds were ringed in Finland, a second paper (Saurola, P. 1998. Pääskyjen perässä kattotuoleilta ruovikkoon. Linnut 2: 18-24) has offered a full report on the activities in 1997, encouraging the ringers to join the project in 1998. In total, 2,921 nestlings, 328 breeding adults and 7,596 full-grown birds roosting in reed-beds were ringed in 1997. All these figures were new annual records, for nestlings three times and for full-grown birds two times higher than the previous ones. The number of ringings was distributed unevenly across the country: 32% of the nestlings and 68% of all full-grown birds were ringed in one 100x100 km square (67:3) of the Finnish National Grid. In 1997, 3 breeding study areas were set up; in total, 374 nest records cards were filled, but very many of them included data from one visit (ringing of

nestlings) only; 25 adults ringed in previous years were recaptured at the nest.

Ringing of swallows roosting in reed-beds in July-September was attempted at 9 sites in southern Finland. However, three of them were very good roosting sites in previous years, but in 1997 the numbers were very small. Further, at one site ringing was forbidden by a landowner fed-up with the Natura 2000 - program. In Tuusulanjarvi,7 hybrids between the Barn Swallow and House Martin, *Delichon urbica*, were found, i.e. one out of 465 young swallows was a hybrid! In total 28 such hybrids have been reported from Finland, 10 of them in 1997. Altogether 85 Swallows ringed as nestlings in the last summer were retrapped in three reed-beds (Tuusulanjarvi, Pyhajarvi and Lusinselka).

These data give some information (although heavily biased by the clumped distribution of ringings) on the pre-migratory movements of young Swallows. The average increase of the body mass of roosting Swallows was 0.04 g/d in first-year birds and 0,07 g/d in older birds. A preliminary analysis suggested that the variation of the body mass was clearly dependent on the weather (cfr. Ormerod 1989).

THE EURING SWALLOW PROJECT IN SLOVENIA

By Dare Sere

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Since 1987 Barn Swallows were being successfully ringed at Ringing Station Vrhnika (near Ljubljana, Slovenia) while roosting. The Ringing Station operates between 15. July and 1. November. Barn Swallows roost in dense foliage of willow trees *(Salix sp.)*, also in the vicinity are four ponds (former clay-gathering sites) that are surrounded by bushy vegetation. Usually, 17 nets are set up (dimensions 12m x 3.8m x 15mm) and a tape with Barn Swallow song is used to attract the roosting birds, the number of which can reach few tens of thousands at the end of August and the beginning of September. As far as ringing of this species is concerned, years 1989 and 1994 were extremely rewarding (22.482 and 23.120 ringed birds, respectively). During the day, other bird species are ringed, the total number of which reaches 12.000-23.300 birds per year.

In 1997 we payed even more attention to the ringing of roosting Barn Swallows in accordance to the EURING project and the result was 21.047 ringed birds (Fig. 1). The Barn Swallows ringed in Slovenia were later recovered (on migration or during wintering) mainly in Italy and fewer in Malta, France, Algeria, Morrocco, Zaire, Central African Republic, Zambia, South African Republic and Israel. Some recoveries came also from other European countries. Before the main migration movements, Barn Swallows from Italy, Austria, Hungary and Croatia come to roost at Vrhnika.

In cold and cloudy weather Sand Martins *(Riparia riparia)* also come to roost and during the day House Martins *(Delichon urbica)* can be observed but in smaller numbers. Three Red-rumped Swallows *(Hirundo daurica)* and five H. rustica x D. urbica hybrids hrave been ringed so far. In 1994 a complete albino female Barn Swallow was caught.

The contemporary ringing activities which take place in Slovenia and Northern Italy show very clearly the potential of co-ordinated efforts in the study of a same phenomenon as, in this case, the pre-migratory fattening of Slovenian swallows, which largely takes place in Italy. This is also a very good example of a same population of a migratory bird being 'shared' by different nations, stressing again the need for conservation strategies which should be properly co-ordinated across national boundaries.

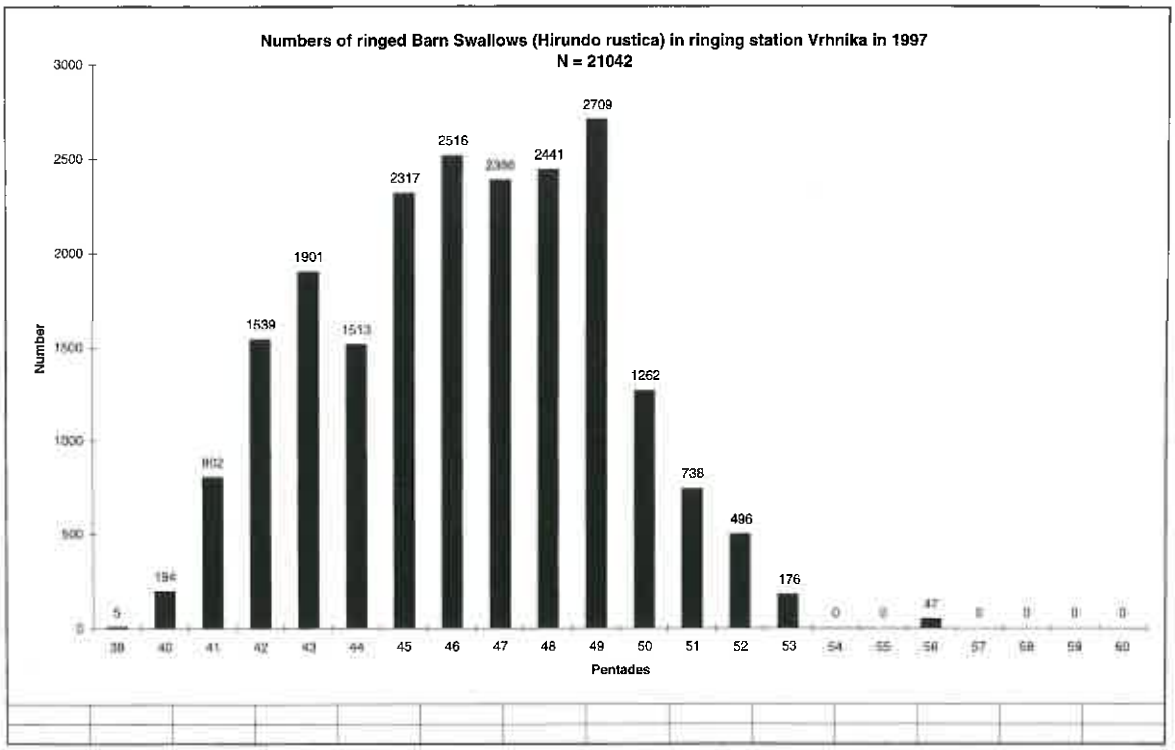

Fig. 1

THE EURING SWALLOW PROJECT IN ITALY

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Since 1994, with the launch of the national Swallow Project, and later of the EURING Swallow Project, a dramatic increase has been recorded in the number of ringed Swallows in Italy (Fig. 1). During the last years, a much higher number of roosts have been studied over the entire peninsula, allowing to analyse various aspects of Swallow moult and fattening strategy.

Two papers have been recently published on this subject. A first one (Pilastro A. & Magnani A. 1997. Weather conditions and fat accumulation dynamics in pre-migratory roosting Barn Swallows *Hirundo rustica*. J. Avian Bio. 28: 338-344) dealt with the effect of weather on the fattening rate in roosting swallows at a site in northern Italy. The data used in this study have been collected, over 5 consecutive years, from July until the beginning of September, by Ariele Magnani, an amateur ringer, with the help of numerous field collaborators.

The results of the correlative analysis between weather conditions and fat accumulation showed that there are two distinct phases in the fattening strategy during the post-reproductive season: during the first phase, swallows probably hang around the roost, undergo a partial moult (body feathers and less frequently 1-3 inner primary feathers) and maintain a small amount of fat reserves which seems to function as an emergence energetic reserve in case of prolonged bad weather conditions. In fact, when weather conditions start to deteriorate, swallows react by increasing their fat reserves.

From the end of August onwards, once completed the moult, swallows start to accumulate fat apparently at their maximum

SWALLOWS RINGED IN ITALY YEARS 1975-1997

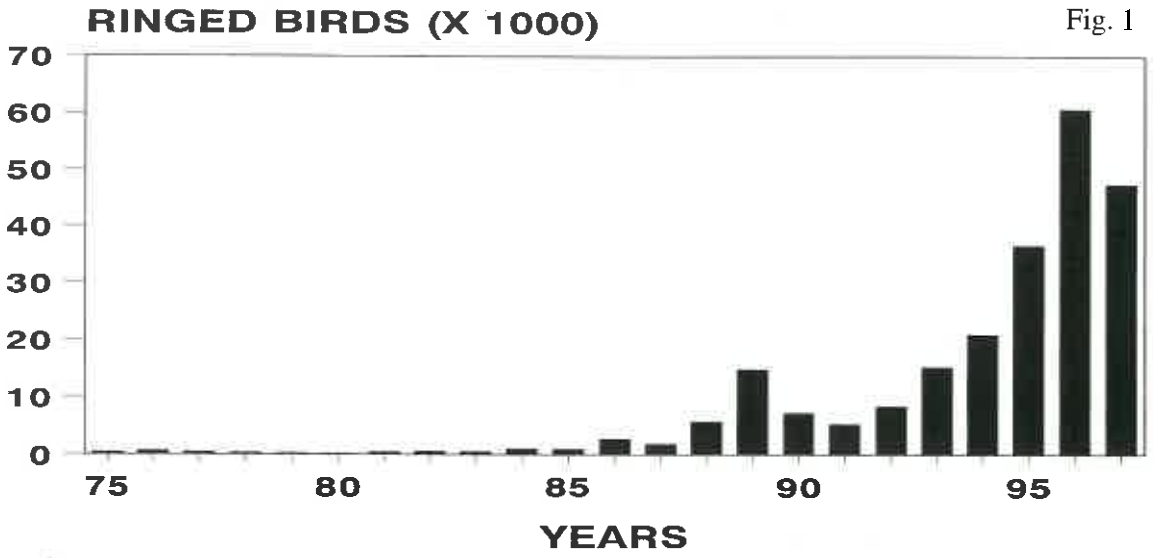

Fig. 1

rate. In this phase, when weather conditions are sub-optimal for feeding, fattening rate decreases. Another interesting result of this study is that the fat reserves accumulated by swallows in Italy are compatible with a direct crossing of the Mediterranean and Sahara desert towards the wintering areas of sub-Saharan Africa. Maximum body mass values observed were around 30 g, corresponding to a body mass increase of about 70% of the estimated lean body mass, a figure similar to what is observed among other long-distance migrant passerine (e.g. Garden Warbler) in the same area.

In a second paper recently appeared on Ringing & Migration (Pilastro A., Micheloni P. & Spina F. 1998. Geographical variation in pre-migratory conditions of Barn Swallows Hirundo rustica in Italy. Ringing & Migration 19: 67-74), a wide geographical survey allowed to investigate swallow fattening strategies along the Italian Peninsula. Within a larger Italian project on the species, contemporary ringing activities during three focal days (September 6-8, 1996, named 'The 3 days of the Swallow') have been carried on at 24 roosts scattered from Northern to Southern Italy and the main islands.

A total of 8,771 Barn Swallows were ringed, out of which 81.8% were juveniles and 18.2% adults. Among the latter, 28.3% were classified as males and 71.7% as females. Most birds had already completed their body moult; a higher fraction of birds still in active moult was found among adults. The frequency of adults with active primary moult was intermediate between the values reported for Northern-Central and Southern Europe respectively.

Mean body mass values were higher in adults, which were also fatter than juveniles. Both in adults and juveniles, fat score was significantly lower in moulting birds. A high variability in mean body mass values and frequency of fat birds was found between roosts. The mean body mass of the 25% heavier birds corresponded to 24.1% and 30.5% of the lean body mass for juveniles and adults respectively. The situation observed in early September does not indicate a clear north-south gradient in the average physical conditions of pre-migratory Barn Swallows, suggesting the use of roosts as sites of concentration of birds staging and fattening in the surrounding areas. The observed latitudinal gradient in the frequency of adults at the roosts might be related to earlier southward movements of more northern birds.

The importance of reed-bed conservation is further pointed out by their role as swallow roost habitats, as derived from these first results of the Swallow project. Roost sites are in fact used not as simple stopover sites, but play a vital role during the whole pre-migratory fattening phase, which is crucial for swallows to be able to safely cross the Mediterranean and Sahara while heading towards their African winter quarters.

JOINT VOGELWARTE RADOLFZELL – EURING MIGRATION PROJECT: A LARGE-SCALE RINGING RECOVERY ANALYSIS OF THE MIGRATION OF EUROPEAN BIRD SPECIES

By Wolfgang Fiedler

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Recent changes in migratory behaviour of bird species show the importance of migration research, and in particular demand documentation of the present state of European bird migration. Moreover, it is usually essential to know the spatial features of seasonal migration in order to investigate ecological, physiological, evolutionary or ethological questions in any particular bird species.

In September 1997 we proposed to EURING a joint Vogelwarte Radolfzell - EURING Migration Project (JVR-EMP) to continue Pan-European ringing recovery analyses. In contrast to the work carried out earlier by Gerhardt Zink and others who did everything themselves, we intend to perform a close cooperation with national specialists. Another innovation is the extensive implementation of the possibilities of electronic data processing and GIS-technology. All 34 EURING member schemes announced cooperation within that project.

The results are to be published as scientific papers in ornithological periodicals, in compilations such as migration atlases, to achieve a broader distribution of the results, and on CD-ROM, to be stored at the EURING data bank for further analyses and use (from the level of checked and corrected rough data).

It has been decided to start with a number of non-passerine species of relatively high public interest, namely White Stork (*Ciconia ciconia*), Bittern (*Botaurus stellaris*), Little Bittern (*Ixobrychus minutus*), Grey Heron (*Ardea cinerea*), Purple Heron (*A. purpurea*) and Great White Egret (*Casmerodius albus*). Up to now, for instance, approximately 25,000 recoveries of the White Stork of more than 15 different national databases have been homogenized, checked, corrected and included into the analysis. A set of tool computer programs for standard analysis routines has been developed and can be distributed among EURING member schemes for their own ringing recovery analyses.

First Results from the White Stork (*Ciconia ciconia*)

Fig. 1 shows the recent state of data input. Still lacking data or data of low represented areas such as the Baltic States, Ucraine, Romania or France are announced to be sent soon. Recoveries of White Storks ringed in Europe are spread between southern Sweden, Cape Town, Canary Islands and India.

Mean migratory directions per 1 x 1 ° geographical cell grids of young storks show the well known migratory divide across central Europe between southwestwards and southeastwards migrating populations until the early 1970ies. In the 1970ies mean migratory directions shifted from southeast to more southern or southwestern directions in parts of Northern Germany and The Netherlands (Fig. 2). The reason most probaly were rising reintroduction projects with imported or handraised birds, winter feeding activities etc. in several parts of Central Europe.

Recoveries of White Storks in their first winter show that some birds of the eastern migrating populations reach South Africa already in november (Fig. 3). On the other hand, december recoveries are spread all over Eastern Africa from Egypt to South Africa. This indicates, that birds may stay farther in the north, probably depending of suitable feeding possibilities. The western migrating

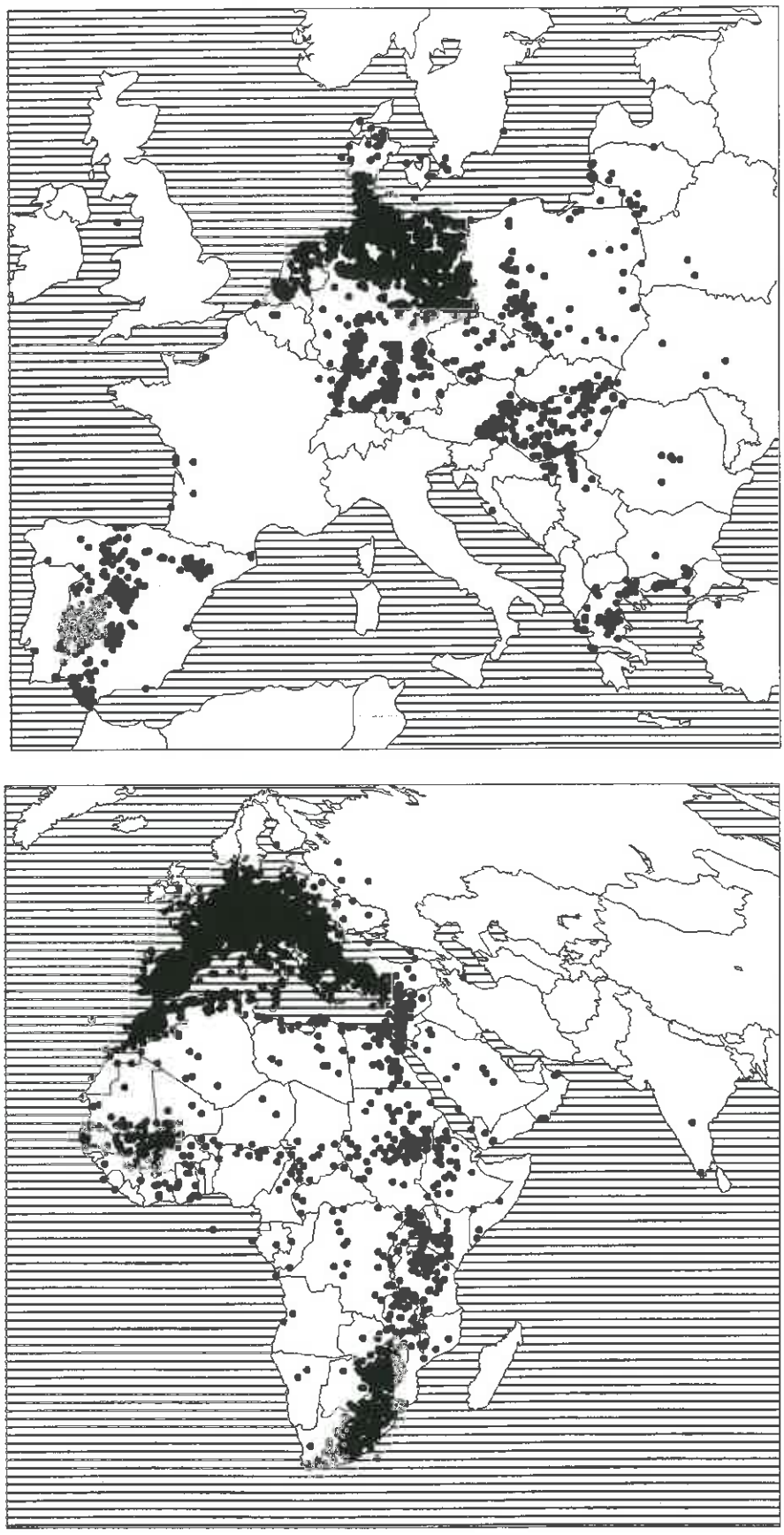

Fig. 1: Ringing localities (left) and recovery places (right) of White Storks presently included into the analysis (data transmission is not yet finished).

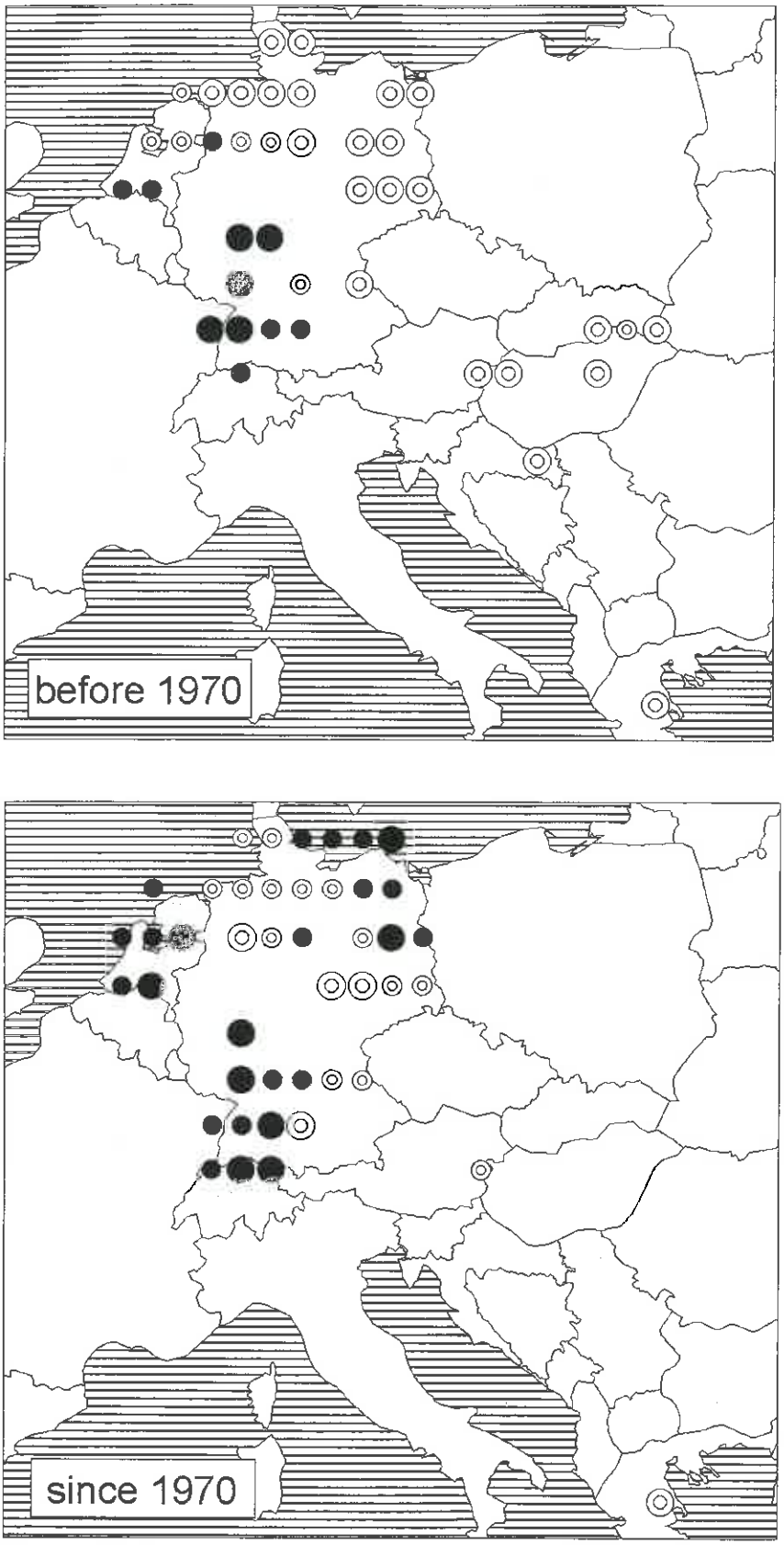

Fig. 2: Directions of departure of White Storks in their first autumn migration. Pooled data for 1x1° cells of geographical longitude and latitude. Birds which were recovered in a northern direction or in a distance less than 50 km or which were handraised are excluded. Only grid cells with a sample size >10 birds are shown. Left: data before 1970 (n= 2191), Right: data since 1970 (n= 4432). Large white symbols: > 75% of the recoveries in southeastern directions; small white symbols: > 50% in southeastern directions; small black dots: > 50% in southwestern directions; large black dots: > 75% in southwestern directions.

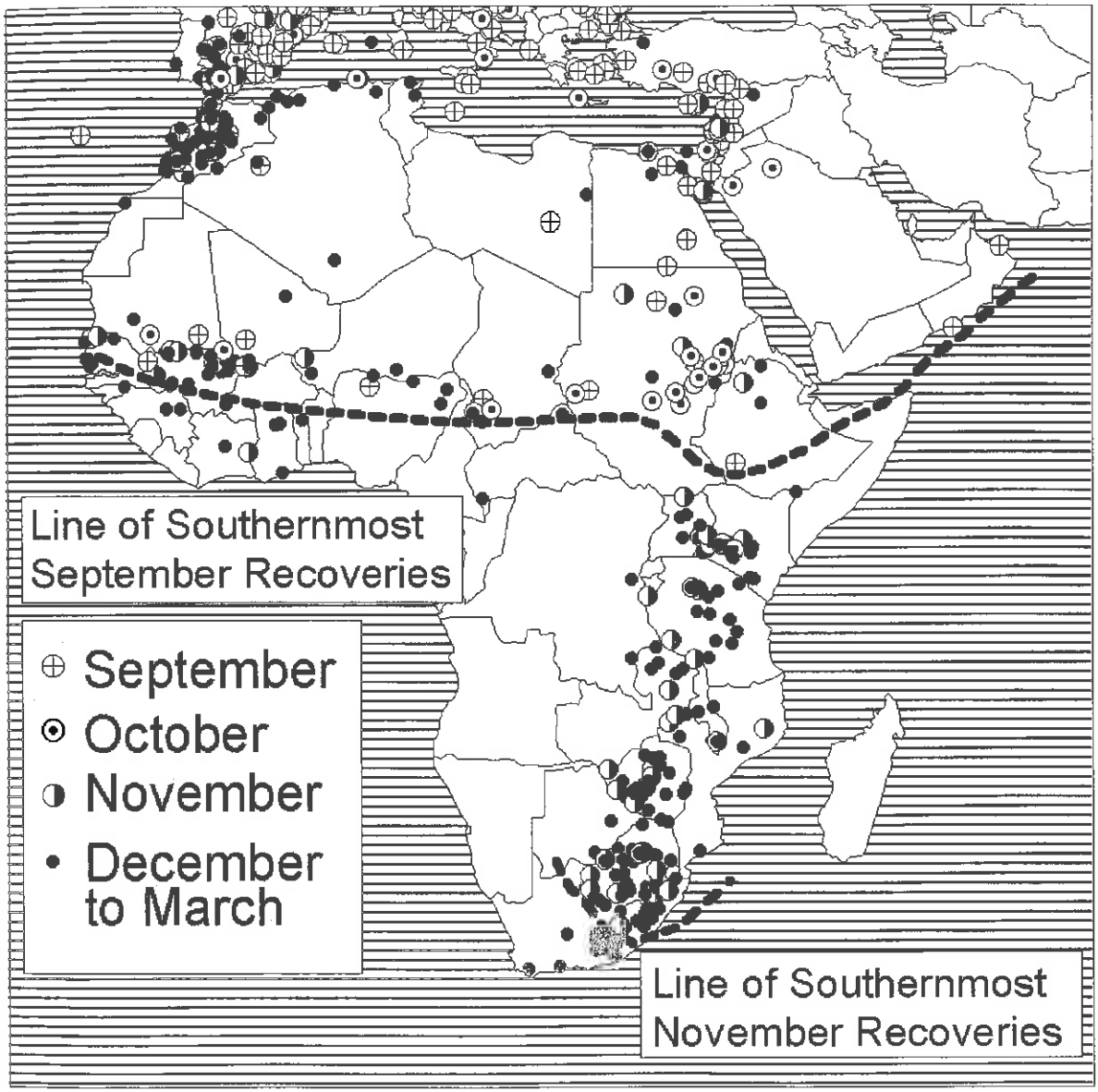

Fig. 3: Recoveries of White Storks during their first winter south of 37° latitude (n= 1577).

populations reach their Central African wintering grounds already in september and do not proceed farther south.

White Storks spend their first and second summer after fledging regularly as nonbreeders. The mean distance from the place of birth (which is in most cases the expected breeding ground for the grown up bird) to the recoveries during first summer was, for instance, about 3000 km before 1970 in storks of Northern Germany. For the period since 1970 this distance changed significantly to less than 1000 km (Fig. 4). An equal trend could be shown for birds of Southern Germany and The Netherlands.

Central European storks spend their second summer in average closer to their place of birth than their first summer. The mean distances between recoveries during the second summer and the place of birth are significantly shorter in the three mentioned populations than the distances in the first summer. In German White Storks mean distances to the place of birth in the second summer are significantly longer than in the following (breeding) summers before 1970. Since 1970 these distances are statistically indistinguishable.

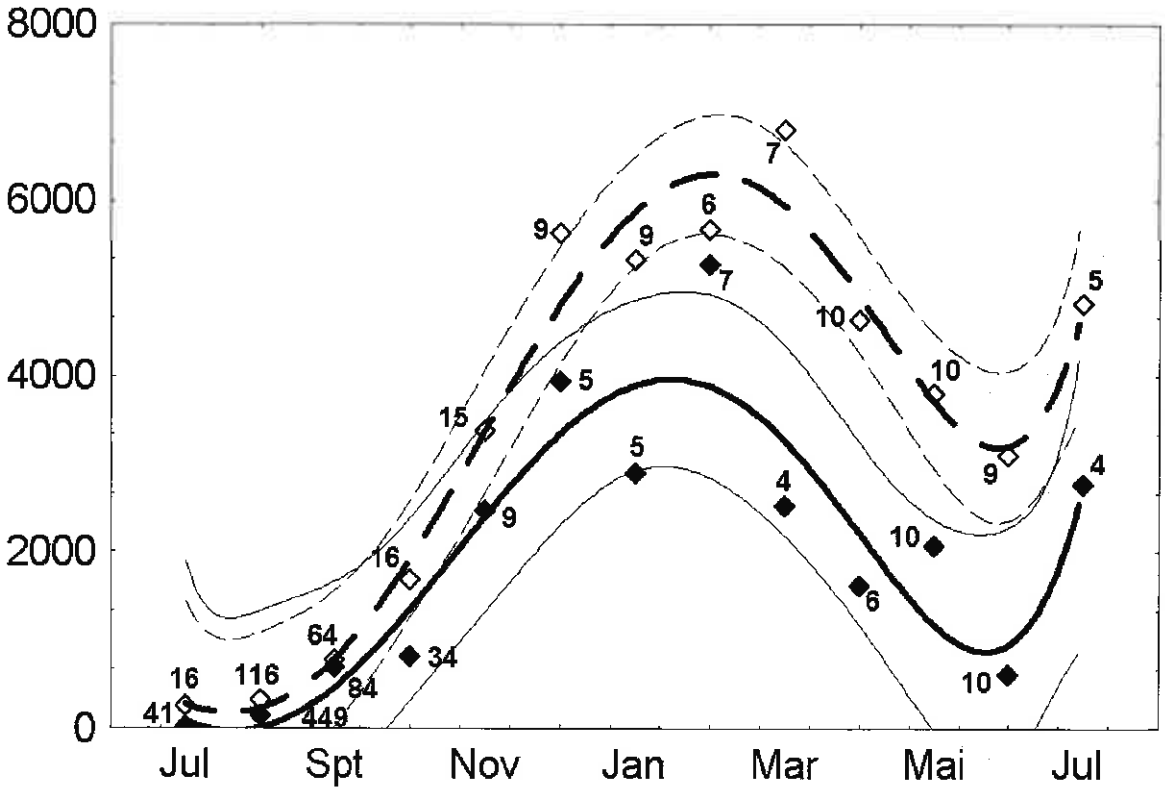

Fig. 4: Mean distances per month between recovery localities and the place of birth in White Storks during their first year. x-axis: months; y-axis: distance (kilometres). White symbols and dashed lines: data before 1970, black symbols and solid lines: data since 1970. The lines are polynomial fits with 95% confidence limits. Numbers indicate the sample size per dataplot.

The results shown are only preliminary and might change slightly during more detailed analyses, especially by further completing the dataset. Nevertheless, within JVR-EM Project for the first time migratory behaviour, recent changes in timing and direction of migration and effects of reintroduction projects and probably climatic and environmental changes can be shown at the scale of the whole European White Stork population.

THE WATERBIRD MIGRATION ATLAS

By Fernando Spina

Following the preliminar draft document on a waterbird migration atlas project proposed by EURING to a series of partner organisations, a meeting has been held on June 2nd 1998, to further discuss details of this challenging idea. The meeting was kindly hosted by the Dutch Institute for Terrestrial Ecology in Heteren, and was attended by: Alexandre Czajkowski (Oiseaux Migrateurs du Paleartique Occidental, OMPO), Nick Davidson (Wetlands International, WI), Arie van Noordwijk, Fernando Spina and Rinse Wassenaar (EURING). Aim of the meeting was setting up a sound co-operation, through the widest possible involvement of scientists and experts in the different stages of the project, as well as an effective fund raising strategy.

Among the main reasons for the atlas project is the recent decision taken by EURING to improve the use of the data stored at the EURING Data Bank (EDB), which represent, for some respects, a fairly unique data set at the international level; from this respect, EURING thought an analysis of the massive information on waterbirds - and especially widlfowl - stored in the EDB might have positively contributed also to the better enforcement of the existing international legislation, like the Wild Birds and Habitat directives, as well as the Bonn Convention, through its African Eurasian Waterfowl Agreement, AEWA). Following the fairly recent WI atlas of Anatidae (Rose & Scott 1996), EURING thought information derived from marked individuals would offer very interesting complementary results to this overview of breeding and migration ranges.

Apart from clarifying gaps in knowledge on waterbird fyways across the Palearctic, the atlas project might offer the possibility of advancing our methodology in analysis of spatio-temporal distribution of recoveries. This would also offer the possibility of understanding where it would be best to concentrate future ringing efforts. During two meetings held in Bologna and in Paris in 1997, the possibility of having a direct involvement also of international hunting organisations like OMPO in this project has been discussed. In the meantime, more contacts were activated with WI, WWT and the AEWA Bonn Secretariat, and positive reactions were received from all these different organisations.

All participants also agreed on the crucial importance of having scientific authorities treating the data, in order to leave the scene free from any risk of misinterpretation of results. The meeting allowed brainstorming on the potentials of the project, among which also the possibility of mingling count data (like those collected by WI thorugh the long-term project of mid-winter counts) with recovery data has been discussed. The idea of publishing the contents of the EDB on the basis of a 5°x5° grid has also been introduced by Arie van Noordwijk and discussed; this index could also be meant as a preparatory stage for this project. At present, WI is developing the ideas for a similar atlas for waders, together with the WSG. One of the first steps of the atlas would be to re-evaluate and update wader populations estimates, and this first stage of the project would not see the analysis of data based on marked individuals.

The different steps to get started with the atlas were discussed. It was agreed a geographical index of recovery data availability to be a first important step. On the basis of this index, for any species further analysis on sex/age differential strategies/migrations could be done. The recovery data available could then be compared with those derived from counts. After ample discussion, it was finally decided to select two first target species, in order to test the analytical procedures and problems: the two species are Teal *Anas crecca* and Ruff *Philomachus pugnax*. In terms of funding, it will be possible to get the project started on the basis of a support offered by OMPO (in the order of 150,000 FF) which will be available once a formal agreement be signed by the different organisations. EURING is at present preparing a text for a multi-lateral agreement to propose to the different organisations involved in the project, and it was very important to have this first meeting before drafting the agreement.

For many years President of EURING, and an expert analyst, Albert Perdeck presents here a new contribution to the complex issue represented by the analysis of ringing-recovery data.

POISSON REGRESSION AS A FLEXIBLE ALTERNATIVE IN THE ANALYSIS OF RING-RECOVERY DATA

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Introduction

The use of ring-recovery data to predict annual survival rates has developed from simple models assuming constant annual adult survival rates and constant recovery rates (Lack 1943, 1951; Haldane 1955) to sophisticated capture-recapture and ring-recovery analyses. Of the latter, the handbook by Brownie et al. (1985) may be considered as a milestone (for useful comments on the methodology see Anderson and Burnham 1987). However, the Fortran-based programs (surveys by Conroy and Hines 1990; Lebreton *et al.* 1993), using multinomial distributions, either encompass a finite number of models (e.g. MULT, Conroy *et al.* 1989; Conroy and Hines 1990), or are difficult to handle for the intermittent user, recompiling needed after each use (SURVIV, White 1983).

As an alternative, it is assumed that the counts (numbers recovered) follow a Poisson distribution, and loglinear models for counts are used, where the calculations are made by maximizing the Poisson-likelihood (Crawley 1993, for capture-recapture analyses see Cormack 1993). Although any program capable of running Poisson (discrete) regression can be used we prefer GLIM (Francia et al. 1993), while it has a high degree of flexibility, and deals easily with any mixture of factors and variates.

We will illustrate the use of Poisson regression for two-age-class ring-recovery models, and compare the results with a similar analysis using MULT.

Data analysis

The structure of the ringing-recoveries of e.g. birds ringed in 3 years, both as adult and young, and recovered in 4 years is given in Table 1, and the probability structure in Table 2 (notation as in Brownie et al. 1985). The expected number of birds recovered R is a product of N, the number of birds ringed, f. the probability that a bird dies and is reported in the subsequent recovery period, and S, the probability that a bird survives to the subsequent ringing period, that is the product of all survivals in the previous years. For instance, the number of recoveries of birds ringed as young in year 1 and recovered by year 4 can be written as:

$$R'_{14} = N'_1 S'_1 S_2 S_3 f_4$$

In a loglinear or Poisson regression analysis this becomes:

$$R'_{14} = exp(logN'_1 + logS'_1 + 1logS_2 + 1logS_3 + 1logt_4)$$

Since the number of birds originally ringed is a constant, we can use $logN_i$, $logN'_i$ as an offset. After starting the Poisson regression program R_{ij}, R'_{ij} is declared the response variable, N_i, N'_i as an offset, and the design matrix as a set of explanatory variables (Table 3). To reduce the number of variables, f, f_i tan be expressed as an interaction term between a factor *AGE* (age at recovery, young or adult) and the factor *YR*, indicating the years of recovery.

The regression equation for MODEL H1 (classification according to Brownie et al. 1985), with both f and S year-dependent can now be written as:

$$S_1 + S_2 + S_3 + S'_1 + S'_2 + S'_3 + AGE.YR$$
(no intercept)

For MODEL H02, with only f year-dependent, the model becomes:

$S + S' + AGE.YR$ (no intercept)

For MODEL H01, with neither *f.* nor *S* year-dependent, the model becomes:

$S + S' + AGE$ (no intercept)

Results

For comparison of the Poisson method using GLIM ("POISSON") with the program MULT we took data of the European Coot (*Fulica atra*) ringed in The Netherlands in a long-term ecologica! study (e.g. Perdeck and Cave 1992). We used the data of birds ringed from March to June during 1966-78 and recovered dead from 1966/67 to 1978/79 (Table 4), a 13-year study. We fitted the models H1, H01 and H02 both with MULT and POISSON. Model selection resulted in both cases in accepting H02 (Table 5).

For this model we compared the parameter estimates and their precision. The parameter estimates of POISSON were back-transformed from log to normal. To obtain an (asymmetric) 95% confidence interval we exponentiated the upper and lower 95% confidence bounds. For comparison with MULT we used the difference between the lower and the upper limit, the 95% confidence error. Table 6 shows that there was an excellent agreement between the two methods in both the parameter estimates and precision. If the model H1 (year-specific survival and recovery rates) had been selected GLIM would easily allow to verify whether the year-dependency was due to S, S', or both, and also whether external factors like population density or winter severity were involved.

Discussion

I conclude that Poisson regression using GLIM is an attractive alternative to the multinomial analysis of ring-recovery data with MULT. It has the advantage of interactive use, while flexible modelling is possible by adapting the design matrix to any hypothesis to be tested. Moreover, studies covering 20 years or more can be handled. The statistical background of Poisson regression is well-known (e.g. Crawley 1993).

Independently, R.E. Cormack has also found that ring-recovery data are easily formulated in the log-linear framework (pers.comm. and note on p.49 in Cormack, R.E. 1993. The flexibility of GLIM analyses of multiple recapture and resighting data. Pp.39-49 in J.-D.Lebreton and P.North (eds.). Marked individuals in the study of bird population. Basel).

After the completion of this paper a new and very complete, flexible Windows 95 program has been introduced by G.White. This program, called MARK, makes most other programs on the subject obsolete.
See Internet site:
http:
//www.cnr.colostate.edu/~gwhite/mark/mark.htm

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Table 1 - Structure of ringing-recovery data for a study involving 3 years of ringing and 4 years of recovery for birds ringed as both adult and young.

Year ringed	Number ringed	Number recovered by year			
		1	2	3	4
Adult					
1 2 3	N_1 N_2 N_3	R_{11}	R'_{12} R'_{22}	R_{13} R_{23} R_{33}	R_{14} R_{24} R_{34}
Young					
1 2 3	N'_1 N'_2 N'_3	R'_{11}	R'_{12} R'_{22}	R'_{13} R'_{23} R'_{33}	R'_{14} R'_{24} R'_{34}

Table 2 - Probability structure (Model H1) for the two-age-class data in Table 1.

Year ringed	Number ringed	Expected number recovered by year			
		1	2	3	4
Adult					
1 2 3	N_1 N_2 N_3	$N_1 f_1$	$N_1 S_1 f_2$ $N_2 f_2$	$N_1 S_1 S_2 f_3$ $N_2 S_2 f_3$ $N_3 f_3$	$N_1 S_1 S_2 S_3 f_4$ $N_2 S_2 S_3 f_4$ $N_3 S_3 f_4$
Young					
1 2 3	N'_1 N'_2 N'_3	$N'_1 f'_1$	$N'_1 ' S_1 f_2$ $N'_2 f'_2$	$N'_1 S'_1 S_2 f_3$ $N'_2 S'_2 f_3$ $N'_3 f'_3$	$N'_1 S'_1 S_2 S_3 f_4$ $N'_2 S'_2 S_3 f_4$ $N'_3 S'_3 f_4$

Table 3 - Rearrangement of Table 2 as input for Poisson regression, with year-independent *S,S'*.

Number expected	Offset variable	Response variable	Design matrix									
			Factors		Variates							
	Number ringed	Number recovered	*AGE* at recovery	Year of recovery (*YR*)	S_1	S_2	S_3	S'_1	S'_2	S'_3	S	S'
Ringed as adults												
$N_1 f_1$	N_1	R_{11}	2	1	0	0	0	0	0	0	0	0
$N_1 S_1 f_2$	N_1	R_{12}	2	2	1	0	0	0	0	0	1	0
$N_1 S_1 S_2 f_3$	N_1	R_{13}	2	3	1	1	0	0	0	0	2	0
$N_1 S_1 S_2 S_3 f_4$	N_1	R_{14}	2	4	1	1	1	0	0	0	3	0
$N_2 f_2$	N_2	R_{22}	2	2	0	0	0	0	0	0	0	0
$N_2 S_2 f_3$	N_2	R_{23}	2	3	0	1	0	0	0	0	1	0
$N_2 S_2 S_3 f_4$	N_2	R_{24}	2	4	0	1	1	0	0	0	2	0
$N_3 f_3$	N_3	R_{33}	2	3	0	0	0	0	0	0	0	0
$N_3 S_3 f_4$	N_3	R_{34}	2	4	0	0	1	0	0	0	1	0
Ringed as young												
$N'_1 f'_1$	N'_1	R'_{11}	1	1	0	0	0	0	0	0	0	0
$N'_1 S'_1 f_2$	N'_1	R'_{12}	2	2	0	0	0	1	0	0	0	1
$N'_1 S'_1 S_2 f_3$	N'_1	R'_{13}	2	3	0	1	0	1	0	0	1	1
$N'_1 S'_1 S_2 S_3 f_4$	N'_1	R'_{14}	2	4	0	1	1	1	0	0	2	1
$N'_2 f'_2$	N'_2	R'_{22}	1	2	0	0	0	0	0	0	0	0
$N'_2 S'_2 f_3$	N'_2	R'_{23}	2	3	0	0	0	0	1	0	0	1
$N'_2 S'_2 S_3 f_4$	N'_2	R'_{24}	2	4	0	0	1	0	1	0	1	1
$N'_3 f'_3$	N'_3	R'_{33}	1	3	0	0	0	0	0	0	0	0
$N'_3 S'_3 f_4$	N'_3	R'_{34}	2	4	0	0	0	0	0	1	0	1

Table 4 - Ringing and recovery matrices for Coot ringed in Aalsmeer, The Netherlands, 1966-78.

Year	Number ringed	Number recovered												
Ringed as adult														
1	74	4	9	1	1	0	0	0	0	0	0	0	0	0
2	77		2	1	1	0	0	1	0	0	0	0	0	0
3	100			9	2	1	0	2	0	1	0	0	0	0
4	107				2	0	1	2	0	0	1	0	0	1
5	87					1	3	0	2	0	0	1	0	0
6	46					0	0	2	1	1	0	1	0	2
7	44					1	1	2	1	1	1	1	1	1
8	46					0	0	2	1	0	1	5	1	1
9	44					1	1	0	1	1	2	1	1	1
10	82					0	1	2	1	0	1	1	2	1
11	60					1	0	2	1	1	2	5	1	1
12	20					0	1	2	1	0	3	1	1	1
13	31					1	0	2	1	1	3	1	1	1
Ringed as young														
1	124	3	0	2	1	0	1	0	1	0	0	1	0	0
2	126		10	2	2	1	1	1	0	0	0	0	0	1
3	202			15	1	2	0	5	0	2	0	1	1	2
4	301				30	3	1	4	1	2	1	0	0	1
5	383					14	2	7	3	2	6	2	1	1
6	590						9	2	2	2	0	1	2	1
7	152							2	2	7	7	1	0	2
8	247								2		12	4	5	1
9	308										9	3	3	2
10	295											6	5	1
11	263											14	3	2
12	151												5	1
13	318												10	2
														8

Table 5 - POISSON and MULT models.

Model	N. of Param.	CHISQ	DF	*P*	Model comparison			CHISQ	DF	*P*
POISSON										
H1	50	113.24	132	0.72						
H02	28	129.96	154	0.68	H02	vs	H1	16.72	22	0.78
H01	4	229.11	178	0.01	H01	vs	H1	115.87	46	0.00
H01	4	229.11	178	0.01	H01	vs	H02	99.16	24	0.00
MULT										
H1	50	30.66	21	0.08						
H02	28	49.85	40	0.14	H02	vs	H1	18.15	22	0.70
H01	4	165.40	70	0.00	H01	vs	H1	120.65	46	0.00
H01	4	165.40	70	0.00	H01	vs	H02	102.51	24	0.00

THE EURING COMMUNITY: AN INTRODUCTION TO THE NATIONAL SCHEMES

This new section will offer an opportunity to introduce the national ringing schemes, their history, developments, present and future activities. A more detailed knowledge of the different national realities will also further contribute to the exchange of experiences and ideas within the EURING community. Joe Sultana reports here on the Valletta Bird Ringing Scheme and its very active and highly motivated ringers.

THE VALLETTA RINGING SCHEME

By Joe Sultana

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The Valletta Bird Ringing Scheme, which is run by BirdLife Malta (formerly Malta Ornithological Society), a non-government organisation, was established in 1965 with the help of the British Trust for Ornithology, whose rings were used for the first ten years. The scheme's Malta addressed rings were launched in October 1976.

The scheme is run on a voluntary basis by a committee appointed by BirdLife Malta's Council and presently has 14 licensed ringers, who pay for the rings they use. Ringers have to be in possession of a police bird-ringing licence. The bird protection regulations in Malta stipulate, amongst other things, that to acquire a police bird-ringing licence one must have a training certificate and approval from a ringing scheme which is recognised by EURING.

The average number of birds ringed per year in the past five years is 13,000 with an annual average of 100 species ringed and about 50 recoveries, 10 of which are foreign. The birds ringed are mainly passerines with the Swallow *Hirundo rustica,* Robin *Erithacus rubecula* and in some years Chiffchaff *Phylloscopus collybita* topping the list. A ringing newsletter is published bimonthly, while a general ringing report appears in BirdLife Malta's ornithological journal Il-*Merill.* The latter is sent to all ringing schemes.

Until last year all ringing, recovery and biometrics data were logged manually. But this year, with the help of the Bologna ringing scheme, we started computerising our ringing data. BirdLife Malta appears on the Internet and in the near future we hope to start including some local ringing information.

Ringing in Malta has to be carried out in a hostile environment for birds. Due to the widespread killing and trapping of birds bird ringing in Malta faces several difficulties and some good areas for migratory birds, which used to be very productive, cannot be tackled due to harassment from hunters and trappers.

In spite of these difficulties long-term ringing studies have been carried out on some species including the Cory's Shearwater *Calonectris diomedea* and the European Storm Petrel *Hydrobates pelagicus.* A constant ringing effort has been maintained at Ghadira nature reserve and since 1996 has also started at is-Simar nature reserve. The scheme continues to take part successfully in the Progetto Piccole Isole on the island of Comino in spring while since 1997 the scheme actively participates in the Swallow project.

BIRD RINGING ACROSS THE WORLD

After the situation of ringing in South Africa described by Terry Oatley in the first isse, here a new and very interesting contribution comes from the United States and Canada. In this huge geographical area bird ringing is fully co-ordinated between the two countries and actively used for bird population management and conservation. Lucie Metras (coordinator of the Canadian Bird Banding Program) and John Tautin (Chief of the U.S. Bird Banding Laboratory) report here on the history and fast developments of bird banding in North America, offering interesting and original experiences in both the organisation of field work and data management.

THE NORTH AMERICAN BANDING PROGRAM

By John Tautin① and Lucie Métras②

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John James Audubon and Ernest Thompson Seton are acknowledged as the first banders in North America, even though they did not actually use bands. Audubon tied silver threads around the legs of nestling Eastern Phoebes *Sayornis phoebe* in Pennsylvania in 1803 and was fortunate to recapture two of the nestlings the following spring. In Canada, Seton marked several Snow Buntings *Plectrophenax nivalis* with printer's ink in 1882 in Manitoba.

During the early years of the North American bird banding program, the daunting challenges of geography and a poor distribution of banders relative to bird populations limited the early studies of marked birds. These challenges were gradually overcome by several factors. The two countries' mutual interest in the conservation of shared populations of migratory bird species was formalized with the signing of the 1916 Convention between the United States and Canada for the Protection of Migratory Birds and the establishment of the uniform, jointly administered banding program in early 1920s.

Today, the Bird Banding Laboratory (BBL), center for the American banding activities and part of the U.S. Geological Survey and the Bird Banding Office (BBO), responsible for coordinating the banding efforts in Canada, and part of the Canadian Wildlife Service, jointly administer the North American bird banding program. They have co-operatively developed similar functions and policies and use the same bands, reporting forms and data formats. Both offices issue permits and bands, coordinate the use of auxiliary markers such as neck collars and radio transmitters, and process and disseminate data. They currently support the work of 2,400 master permittees who are equivalent to the United Kingdom's A class ringers. Some other 3,000 subpermittees band under their direction.

These banders are comprised of government conservation agencies, the academic community, professional and amateur ornithologists, non-governmental organizations, and businesses. They are involved in establishing waterfowl hunting regulations, monitoring bird populations, restoring endangered species, studying effects of environmental contaminants, studying bird behavior and ecology, educating people about bird conservation, and addressing issues of human health, safety and economy. Many banders are involved with national and international level conservation programs. Some examples include the North American

Waterfowl Management Plan which concentrates on the restoration of waterfowl populations and their habitats in Canada, Mexico, and the U.S., the Partners in Flight program which emphasizes conservation of species which breed in Canada and U.S. and winter in Latin America, and the Wetlands for the Americas program which focuses on the conservation of shorebirds.

As of 1997, 57 million banding and 3.1 million recovery records representing over 900 species and subspecies were on file at the banding offices. These totals are increasing by about 1.2 million bandings and 75 thousand encounters annually. Game species (primarily waterfowl) represent 25% of all bandings, but 75% of the recoveries. Although historically most banding projects have been small scale and local, in recent years, large-scale, cooperative projects have become more prominent in North America. This shift is due to the pressing need for more good, reliable data for all species of migrants and their habitats to ensure their conservation through their entire migratory range. Another noticeable change is that during the last ten years, the number of projects aimed at gaining more information on nongame birds, especially landbird, shorebird and seabird species, has increased due to the pressing need to identify the primary causes of population declines.

BBL and BBO recognize that improving the quality of scientific data collected without compromising the safety of the birds, and increasing the participation of banders in large-scale, long-term monitoring, conservation and research studies of North American bird populations are major challenges of today. Both offices are actively adapting operations to facilitate large-scale studies and make the banding programs more scientific and effective. The changes are also being accelerated by recent developments in the bird banding program:

In 1996, the North American Banding Council (NABC) was formed with the mission to promote sound and ethical banding principles and techniques in North America. NABC consists of appointed members from the major ornithological and banding organizations in North America. They represent the various groups of bird species being banded in North America such as passerines and near passerines, shorebirds, seabirds, waterfowl, raptors. NABC's main objectives are to prepare and disseminate standardized training and study materials, and to establish standards of competence and ethics through a certification process at three levels : Assistant, Permittee and Trainer. As early as 1998, a North American Bander's Study Guide and a North American Syllabus for Trainers will be published, including some specialized materials for banding passerines and near passerines, raptors and hummingbirds. It is expected that 1998 will see its first group of NABC certified banders in North America. This certification will not be mandatory, but will be recognized by both banding offices (BBL and BBO) as an evidence of demonstrated competence when banding permits are requested. It is obvious that, in North America, bander training and certification must be encouraged to improve the quality of banding data and to increase the number of banders participating in large -scale, cooperative studies. Improving standards for banding will also enhance animal welfare.

In 1996, a toll-free telephone number was established in North America for people to more conveniently report band recoveries. The goal is to increase band reporting rates substantially from the 0.32 rate, cited in the Nichols et al. A brief postal address and the toll-free telephone number are now stamped on larger sized bands used mostly on waterfowl. A 1995 trial where equal (12,000) samples of mallards were banded with bands bearing the telephone number vs. bands bearing only an address indicated that the toll-free telephone number prompts significantly more band reports from the public. In 1996, toll-free bands were placed on most mallards banded, and the availability of the number was announced to the public. A record number of band recoveries was received in 1996, with nearly 60% coming via the telephone. In 1997, toll-free bands were made available for all waterfowl banding, as well for larger size bands used on nongame birds such as herons. Another record year for band recoveries is expected.

The plan is now to include the 1-800 telephone number on all band sizes (inside the band for small sizes) and to transit rapidly through these changes to stabilize the band reporting rate at some new, higher level that will be re-estimated in a few years. In addition to a larger volume of data, the toll-free number also produces better data, primarily because specific and more complete information can be obtained by the operator. Telephone reports are also more timely than written reports, thus reducing memory bias.

The September 1997, release of the report, "The North American Bird Banding Program: Into the 21st Century" is accelerating changes in the North American bird banding program. The report is the product of a distinguished panel of experts who were tasked with reviewing operations of BBL and the broader North American banding program. The report makes specific recommendations regarding policies, the now and future collection, the management and dissemination of banding data. An implementation team has been appointed, and several task forces are addressing specific recommendations from the report.

One of the key recommendations was to evaluate the collection of banding and recovery data with a view towards facilitating the increased use of contemporary analytical methods and to improve the quality of data collected from long term large scale studies. For example, hundreds of banders collect thousands of recapture, resighting and radio-location data for their specific studies. Approximately 56% of banders use auxiliary markers (e.g., neck collars, radio transmitters) in addition to numbered leg bands. At present, however, these data are not collected and stored at BBL, hence are not available for general use in meta-analyses. Questions about the universal value of recapture data exist, though, and exactly which and how much recapture data should be collected and stored is a continuing debate. It is predicted that in a near future, select sets of recapture records will likely be incorporated into our already massive database.

BBL and BBO are already making significant changes in the ways ongoing accepted data are collected, stored and disseminated to users. For example, the waterfowl banding and recovery database are now accessible on cd-rom. Banders are also being encouraged to submit banding data electronically, with 35% of all banding data presently being submitted on computer disk. Improved software and network links will be developed to accomplish the goal of receiving 100% of banding data electronically within few years. BBL is moving its database from a largely insular system designed for internal management of a hierarchical database on a minicomputer to a client-server based system managing a relational database making more use of personal computers. Raw data will be made more readily available to users, likely being served through Internet web sites along with explanatory information and interactive analytical software.

Lastly, BBL and BBO are promoting cooperation and partnership amongst government agencies, academic research programs and individuals and groups to assure the long-term success of the North American bird banding program. Moreover, because the conservation of migratory birds implies protection of the species and their habitat on the breeding grounds, migration routes and wintering grounds, international cooperation and partnerships throughout the entire Western Hemisphere must be sought or maintained. This would encourage the banding and stewardship of all birds in the Western Hemisphere; help to conserve habitat of importance for migratory species; better understand ecological interactions between endemic and migratory species; increase recoveries on their wintering or breeding grounds of birds banded in North America. It is therefore envisaged that BBL and BBO will initiate work in the near future with other Western Hemisphere governments to collectively implement, coordinated and integrated banding standards and protocols for this region of the world.

ROUND TABLE DISCUSSION ON BIRD RINGING AT THE XXIII I.O.C.

By Fernando Spina and John Tautin

As already announced during the Prague general meeting, the idea of proposing a new standing committee on bird ringing within the I.O.C. has been taken further. At the last congress, convened by Fernando Spina (EURING) and John Tautin (Bird Banding Laboratory, U.S.A.), a round table discussion has taken place on August 18th, 1998, titled 'Present and future of scientific bird ringing'.

The RTD was attended by representatives of: Europe (EURING), U.S.A., Kenya, Australia, Canada, Hong Kong, Subantarctica. A report had been forwarded from Japan, on the situation in Asia.

John Tautin welcomed attendees and opened the RTD with brief remarks about the agenda and the opportunity to begin addressing issues and needs common to national ringing programs.

An introduction to the RTD has been offered by John Tautin, followed by regional reports from: Europe: (Fernando Spina), USA & Canada: (John Tautin), Africa: (Dieter Oschadleus), Australia: (Barry Baker), Subantarctica (presented by Dieter Oschadleus). These brief reports were meant to offer an overview of the co-ordination and use of ringing world-wide, in order to understand the common aspects and problems which are shared by all ringing schemes.

Europe: Fernando Spina introduced the situation of the international organisation of bird ringing in Europe, with special emphasys on the role of EURING. Given the many national ringing schemes, EURING undoubtedly regularly deals with the problems - and the impressive potential - of co-ordinating large numbers of ringers through their national schemes. The common code to exchange ringing/recovery information has been mentioned, together with the recently started new large-scale projects. Also the different uses of data gathered through ringing for basic and applied science have been briefly mentioned, as well as their contribution to bird conservation and management.

USA and Canada: John Tautin reported that the North American bird banding program had recently been reviewed by a panel of experts with the aim of making the program more efficient and scientific. Several task forces had been appointed to further evaluate and develop the review panel's recommendations. Emphasis is on permit policies and procedures, data release policy, electronic data management, recapture/resighting data, location data, and the value of processing weights, measurements and other data collected ancillary to basic banding data. Numerous changes in operations of the US and Canadian banding offices are expected over the next two years.

Africa: Dieter Oschadleus, the recently appointed ringing coordinator for SAFRING, provided an update on the status of their program. SAFRING is attempting to have all ringers submit computerized ringing data. SAFRING recently published an extensive atlas of raptor recoveries. The possible formation of AFRING, a confederation of African ringing programs modelled after EURING, was mentioned. Dieter also reported briefly on banding in subAntarctica for John Cooper who was unable to attend the RTD.

Australia:Barry Baker provided an update on the status of the Australian Bird and Band Banding Scheme which appears to be well developed and organized with all ringing data computerized, over 700 active ringers and all ringings computerised since 1984.

Asia: Fernando Spina spoke on behalf of Kio Ozaki of Japan who was unable to attend. Asian ringing schemes held a conference in Thailand in 1997. Cooperation in the EURING swallow project, and the possible formation of ASRING, a confederation of Asian ringing programs, are the main items of current interest in Asia.

Ines S. L. Nascimiento representing CEMAVE, the Brazilian banding program, and John Cooper (SubAntarctica) were unable to attend the RTD.

Examples of the use which is made, at different levels, of the data gathered through ringing, were offered by three specific contributions: 'The example of the BTO

integrated monitoring scheme' (Chris Wernham, BTO), 'Perspectives in the analysis of data from the EURING Data Bank' (Arie van Noordwijk, EURING), 'MAPS project and its use for songbird population monitoring in the States' (John Tautin, Bird Banding Lab, U.S.A.).

These study cases stimulated an open-floor discussion on the many different problems shared by all ringing schemes, among which the opportunity of making a wider use of data gathered through ringing. There was therefore a general agreement on the idea of setting up a better international co-ordination between ringing schemes, and from this respect EURING will offer his long-term experience as a union of over 35 national schemes. As a first step, a questionnaire will be distributed to all schemes to gather information on general aspects like: trainging and licensing, data recording by the ringers, data management by the scheme, computer facilities and specific software, co-ordinated projects, use of data.

A report will then be produced out of these data, which will be used as a working document for a workshop to be organized during the forthcoming conference on the 100 years of bird ringing.

Together with the questionnaire, schemes will be asked to appoint representatives within the committee, following the IOC protocols. This new standing committee has been formally accepted by the International Ornithological Committee during its second meeting in Durban, held on August 21st, 1998.

PECULIAR RECOVERIES

All those involved with ringing know that birds can be recovered in the most incredible situations; some of these odd circumstances are just funny, others offer very interesting insights into unusual bird behaviours.

This new section will offer an opportunity to report peculiar situations, like the two cases offered here by Lukas Jenni from Sempach and Gerrit Speek from Heteren.

All schemes are kindly requested to contribute with their 'special cases' to this section for the future issues of the newsletter.

AN INCREDIBLE DIPPER STORY: NESTLING DIPPER *CINCLUS CINCLUS AQUATICUS* FROM SWITZERLAND MOVES 1055 KM TO POLAND AND BREEDS WITH A SWEDISH *DIPPER C. C. CINCLUS*

During a long-term Dipper study in Switzerland, over 1000 nestlings and 250 adults were ringed by Dr. Johann Hegelbach and co-workers, Zoological Museum, University of Zurich. One nestling whose parents were also ringed, was ringed near Langnau, Switzerland on 2 June 1992 (S 109854). It was recaught on 19 October 1992, determined as a male, colour ringed and observed overwintering in the area until 15 March 1993. Almost 8 months later, on 5 November 1993, this bird was caught by Arkadiusz Sikora at Goscicino near Gdansk, Poland and overwintered there. On 5 December 1993, the Polish colleagues controlled a female Dipper 6 km from Goscicino with a Stockholm ring (4358137), ringed as a nestling in Ossjon, Central Sweden on 1 June 1993. This bird was caught again at Goscicino on 24 February 1994, with the Swiss male present. On 10 and 18 March, they built a nest, but nestbuilding was stopped on 25 March. However, they built another nest on 4 April which contained 3 eggs on 24 April and 2-3 nestlings on 15 May.

The Swiss male spent the winter 1994/95 again in Poland and was last controlled on 29 March 1995, 31 October and 15 November 1995. The Swedish female, however, was caught near Stockholm on 9 November 1994, roosting in a nest box. It reappeared in Poland on 30 November and was controlled there on 15 February 1995. Apparently, this female went back to Sweden after breeding, but regained Poland for the winter.

The Swiss male of the subspecies *aquaticus* moved over the longest distance known for Dippers, crossed an area free of Dippers across Poland, established itself in the area of the subspecies *cinclus*, became part of the exceptional breeders in northern Poland, mated a bird of the other subspecies and bred successfully.

See Hegelbach and Koch (1994), Ornithol. Beob. 91: 295-299, and Sikora (1994), Notatki Orn. 35: 182-185, supplemented by additional records of the Sempach ringing scheme, checked by Roland Staav, Stockholm, assembled and communicated by Lukas Jenni.

MUTE SWAN MIGRATING TOWARDS THE SUN

An urgent fax arrived at the Vogeltrekstation Arnhem on 29 January 1997: a Mute Swan with a Dutch ring, 139N139N, had been found on Gran Canaria, Bahia Arguineguin (28.00 N 15.30 W). The bird had been ringed on 5 August 1995 as a female cygnet near Groningen, in the north of Holland (53.12 N 06.33 E). The distance that the bird had travelled -3350 km - is exceptional for a species that usually stays in Holland all year around.

The local Authorities in the Canaries had found the bird in the pond of a hotel and the

hotel manager showed them the bill from the local pet shop! The bird had been sighted twice in December 1995 in the Netherlands, so the bird had certainly fledged there. This suggests that it was caught illegally during the moult in the summer of 1996. Surprisingly, the bird's kidnappers hadn't thought to remove the ring. Our Spanish colleagues made an enormous effort to send the bird back to Holland with all the necessary documents (veterinay, customs declaration etc.) because the local habitat (cacti and salt water) is not ideal for Mute Swans. So on 15 June 1997 the Swan arrived at Schiphol airport, perfectly housed in a dog kennel. The ringer (J. Beekman) released it the next day at Lauwersmeer, accompanied by reporters and photograhers from the newspapers.

Vogeltrekstation Arnhem Holland.

THE EURING DATA BANK

REPORT FROM THE EURING DATA BANK MANAGER

By Rinse Wassenaar

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Since the first issue of the Euring Newsletter many things have happened.

More schemes have been able to start sending coded recoveries to the EDB, some even at a regular basis. Other schemes are still in the process of collecting means and the necessary tools to start computerizing data.

Without neclecting the huge efforts of those schemes, especially the ones in Middle and Eastern Europe, presented here is an example of recovery numbers for a Southern Scheme, compared with a more Northern one.

Both were during 1998 able to complete coding and to send in their old as well as their fresh recovery data in a self chosen practical order.

BOLOGNA IAB STAVANGER NOS. A few "interesting" species from scheme numbers: both schemes now in the EDBfile.

				Species	Italy	Norway	Others
IAA	361	NOA	3222	Redwing	756	800	3900
IAB	14636	NOO	4154	Swallow	954	-	12000
IAG	676	NOS	16778	Meditt. Gull	362	0	45
IAL	8149	NOU	99	Sparrowhawk	28	354	4350
IAM	35	NOX	2	Mute Swan	9	286	73200
IAO	84	--	-------	Teal	142	62	29300
IAR	3	5	24255	Remark: Norway Barnacle G.	0	370	330
IAV	90			only Redwing & Osprey	1	91	540
IAY	1024			non-passerines	9		25058

Efforts are concentrated on stimulating all european schemes to take up the coding, computerizing and sending of recoveries to the EDB. (Copies of the coding manual are available - do contact the EDB manager.)

Apart from the work devoted to the larger projects such as the combined RUFO/JVR/EMP/EURING project, the Waterfowl Atlas plans, the Swallow project, etc. and the regular work on more restricted data requests, much time has been devoted on the plans for assisting some schemes under the EURING/EDB umbrella. Time constraints did not permit a more wide and well directed advertizing of the (possibilities of the) EDB among professional ornithologists. But, since quite many visitors from other schemes were received and informed in Heteren, the word is spreading.

The recently circulated request for sending coding questions and proposals for improvements by email has so far only lead to one reaction from Sweden. Much time went into the various problems around the organizing of Tulcea98. At this General Meeting ideas about improving and modernizing the present Euring Code were further developed. Another important decision taken there was that from 15 October 1998 on, also any "data requests for purely regional avifaunistical purposes" (a Rule decided upon in Greifswald 1984) had to be circulated to all schemes involved for obtaining their specific permissions.

The "One-Month-Only-Response-Time" should keep the waiting periods reduced.

EURING MEETINGS

Undoubtedly among the most important EURING initiatives, the analytical meetings have been able to involve statisticians and ornithologists in the joint effort of making the best possible use of mark-recapture data in the study of bird population dynamics. The last of these meeting, EURING '97, was organised and kindly hosted by the British Trust for Ornithology. Gavin Siriwardena reports here on this successful and important conference.

REPORT ON THE EURING '97 CONFERENCE 'LARGE-SCALE STUDIES OF MARKED BIRDS'

By Gavin Siriwardena

BTO, NATIONAL CENTRE FOR ORNITHOLOGY
THE NUNNERY, THETFORD
NORFOLK, IP24 2PU, UK
(Email: gavin.siriwardena@bto.org)

Since the inception of national ringing schemes worldwide, numerous insights into species' natural histories have been gained from straightforward examinations of ring-recovery data. Ringing has told us, for example, that many British passerines migrate across the Sahara desert (a fact that is still almost unbelievable when one looks at, say, a Whitethroat) and that Fulmars can live for over thirty years.

Such qualitative facts can easily be extracted from ring recoveries, but more quantitative data are much harder to produce: we need to find the methods by which the (relatively) tiny numbers of birds ringed can most effectively be used to reflect reality at the population or species level. Finding better ways to answer questions of scientific or conservation interest such as "are tree sparrows likely to be less long lived now than they were ten years ago?" has occupied some of the world's top statisticians for over twenty years.

The regular Technical Meetings organized by the European Union for Bird Ringing (EURING) represent the major world forum for analysts of ringing data, and they promote the development and application of appropriate statistical methods by bringing together statisticians and ornithologists in mutually beneficial exchanges of ideas. The sixth EURING Technical Meeting took place between 7-12 April 1997 at the University of East Anglia, and was hosted by the BTO. EURING '97 attracted over 70 scientists from 19 countries (including the USA, New Zealand, Latvia and Spain), who were joined by several BTO research staff.

The talks and posters presented covered methodological issues, new computer software and applications of the methods to real ornithological problems. There was also a short course in which the statisticians led us ecologists (via some occasionally terrifying maths) to a better understanding of the methods currently favoured for the analysis of movements and survival.

Basic statistical methods for calculating annual survival rates from mark-recapture (such as CES) and ring-recovery data have existed for several decades, and have been adapted and improved upon over time to allow closer approximations to reality (including, for example, consideration of possible changes in the probability of ringed birds being found and reported after death). New analytical procedures presented at EURING '97 included a protocol for mark-recapture studies allowing for transitory behaviour, i.e. allowing the separation of birds not recaptured due to death and those not recaptured because they have emigrated (Mike Conroy, USA). A technique allowing the inclusion of recapture, resighting (such as of colour rings) and ring-recovery data in the same model, so that the data from all possible sources could be combined to estimate survival, was presented by Richard Barker (New Zealand), and Roger Pradel (France) showed how the models used for capture-recapture studies could be adapted to

investigate the recruitment of independent young into breeding populations (this phase of the life cycle is in general very difficult to study).

Several excellent new or updated software packages were demonstrated by their authors, showing how more and more complex analyses of variations in survival (among other parameters) are becoming easier and easier, year-by-year, to do. In particular, the new MARK program (Gary White, USA) not only allows just about any type of recovery or recapture analysis to be conducted, but is also written specifically for the extra-user-friendly Windows '95 interface, and is free over the World Wide Web!

The BTO's role in the biological-statistical collaboration that EURING Technical Meetings represent is very much at the "business end", putting the models and software into use with the huge data sets amassed by ringers (and those who have reported ringed dead birds) over the years. David Thomson of the BTO told the conference how his analyses of British ring-recovery data have shown that there has been a fall in the first year survival of Song Thrushes since the 1970s, and that this factor alone may well have caused the population decline shown by the Common Bird Census. This kind of study is particularly significant given that an equivalent would be impossible in most other parts of the world: in North America, for example, the sheer size of the country and its low human population density mean that although many rings are put on, they are only very rarely recovered from non-quarry species.

Chris Wernham talked about a more applied use of BTO ringing data, investigating the causes of the recent inland expansion of Cormorants, and the novel methods she has had to use to try to discover which traditional breeding areas have acted as the source of the influx (final results were still unknown when the talk was given). Other applied studies included one by Steven Piper (South Africa), who told of how colour ring resighting data had been used to find firstly that the threatened Cape Griffon Vulture tended to have very poor survival in the period immediately following fledging, and secondly that the provision of supplementary food at this time (in the form of carcasses) dramatically increased this survival rate. Michael Samuel (USA) then described how mark-resighting, radio-tracking and ring-recovery methods had been used to show that avian cholera regularly affected Lesser Snow Goose populations significantly via an effect on survival, and that vaccination against the disease improved the prospects of individual geese (although it was not 100% effective).

Several other speakers talked about studies with results directly relevant to ringing in practice. For example, David DeSante (USA) showed how data from the US equivalent of the CES scheme (known as MAPS: Monitoring Avian Productivity and Survival) could be used to produce good measures of annual productivity, which in turn could lead to strong predictions of future population trends at both the site-local and regional scales. Juan Carlos Senar (Spain) talked about an ingenious study in which Great Tits' trap-shyness towards baited funnel traps was tested for using both recaptures and video-taped resightings at a feeder adjacent to the trap. The results suggested that yearlings are more likely to be recaptured than adults, and adult males more likely than females, but that the different capture probabilities are due to the birds' dependence on supplementary food, and not to trap-shyness.

Finally, Rhys Green (RSPB) presented a valuable example of how useful information on the survival and dispersal of a very rare bird, the Corncrake, could be gleaned from ringing data despite the fact that (necessarily) very few Corncrakes are ringed, and only tiny numbers recovered. It is important that even when sample sizes would be considered too small by conventional wisdom, as is frequently the case for rare and declining species, data from a well-directed ringing programme can still answer significant conservation questions. EURING '97 was a great success, and the BTO organizers received many positive reactions from those who attended.

The formal and informal communication between the statisticians and biologists has led immediately, at least at the BTO, to several novel methods which will allow us to conduct new and better analyses of the data sets the Trust's members have generated. In this way the links forged at EURING '97 (and the past Technical Meetings) will continue to help improve the range and quality of the information we can provide for the science in conservation. Anyone interested in further details of the presentations at EURING '97 is directed to the conference proceedings which will be published early next year in Bird Study (spoken papers) and The Ring (poster papers).

Proceedings of EURING Technical Conferences

1. Wageningen, The Netherlands, 4-7 March 1986 North, P.M. (Ed.) 1987. Ringing recovery analytical methods. *Acta Ornithologica* 23, 1. Available from British Trust for Ornithology, The Nunnery, Thetford, Norfolk, IP24 2PU, UK, price £10.50.
2 Sempach, Switzerland, 12-14 April 1989 North, P.M. (Ed.) 1990. The statistical investigation of avian population dynamics using data from ringing recoveries and live recaptures of marked birds (ed. P.M. North). *The Ring* (1990) 13, 1 & 2. Business address: Przebendowo, 84-210 Choczewo, Poland.
3. Montpellier, France, April 1992 Marked individuals in the study of bird population (ed. J.-D. Lebreton & P.M. North) (1993) Birkhauser Verlag, Basel. ISBN 3-7643-2780-4 (Basel, Switzerland).
4. Patuxent, USA, 19-24 September 1994 Statistics and Ornithology (ed. P.M. North & J.D. Nichols). *Journal of Applied Statistics* (1995) 22, 5 & 6. ISSN 0266-4763. Carfax Publishing Company, PO Box 25, Abingdon, Oxfordshire, OX14 3UE, UK.
5. Norwich, UK, 7-12 April 1997 Proceedings to be published in 1998 as a special supplement to *Bird Study*.

FUTURE MEETINGS

BIRD RINGING 100 YEARS

In 1999 it will be 100 years since Mortensen started to sistematically ring birds in Denmark. EURING has decided to celebrate this anniversary with an international conference which will attract scientists from all over the world.

The conference will be held on the island of Helgoland (Germany) between 29 September (arrivals and evening opening ceremony) - 3 October 1999 (departures).

All further details on this important EURING initiative will be included in the 2nd Announcement which will soon be distributed.

For general information on the meeting please contact:

Prof. Dr. Franz Bairlein
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Vogelwarte Helgoland
An der Vogelwarte 21
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Tel. +49 (0) 4421 96890
Fax. +49 (0) 4421 968955
e-mail: bairlein@ifv-terramare.fh-wilhelmshaven.de
homepage:http://home.t-online.de/home/O.Hueppop-IFV/ifv_hp.htm

14TH EURING GENERAL MEETING

The important meeting to celebrate the first 100 years of bird ringing will attract most of the EURING delegates. The next EURING General Meeting will therefore be held just before the conference (29 September 1999) on the island of Helgoland, with arrival of delegates on 28 September.

It is crucial that all ringing schemes be represented at the meeting, given the important decisions to be taken by the assembly. We ask all delegates who may have problems attending the meeting (funding, visas) to contact the organisers as soon as possible, in order to try and solve them.

EURING 2000

The next EURING analytical meeting, entitled EURING 2000, will take place in october 2000 near Point Reyes, California. Dr. Nadav Nur will chair the local organizing committee, while Dr. David Anderson is the chairman of the scientific programme committee.

On the basis of the full success of the previous meetings, this next conference will try to further narrow the still existing gap between theory (statisticians) and practice (biologists). A particular emphasis will be given to breaking down barriers between different scientific disciplines and exploiting new methodologies in the use of data gathered through marked individuals.

Further information on the conference will be circulated in the near future. The conference organisers are:

- Dr. Nadav Nur (local organizing committee), Point Reyes Bird Observatory, 4990 Shoreline Highway, Stinson Beach, CA 94970-9701, USA. Tel: 415 868 1221 x 15; Fax 415 868 1946, email: NadavNur@prbo.org;

- Dr. David R. Anderson (scientific programme committee), Colorado Cooperative Fish & Wildlife Research Unit, 201 Wagar Building, Colorado State University, Fort Collins, Colorado 80523-1484, USA. Tel. 970 491-5396, Fax 970 491-1413, email: anderson@picea.cnr.colostate.edu

SECOND MEETING OF THE EUROPEAN ORNITHOLOGISTS' UNION

The European Ornithologists' Union was established in 1997. The aim of the Union is the advancement of ornithology and the promotion of the scientific study of birds among ornithologists within Europe.

The first EOU Meeting was held in Bologna, Italy, and was attended by nearly 250 participants from 28 countries (mostly from the west part of Europe). The aim of the Second **Meeting** is to create an opportunity for a really large number of **ornithologists from the whole of Europe** to exchange the most recent results of their work in different topics, to discuss different aspects of their research, to make contacts between central/eastern scientists and western ones as effective as possible. Thus it was proposed to hold this conference in Poland to enable many scientists from central and eastern part of Europe to attend.

The conference will include three days of meetings and will consist of:
- plenary sessions
- symposia/workshops
- poster sessions with special time for presentation and discussion

At the plenary sessions key-speakers will be invited.

Language:
The conference will be held in **English.**

Proceedings:
will be published in **English.**

Venue & Accommodation
The conference will take place in Gdañsk, an old town situated on the coast of the Baltic Sea in the north part of Poland. It will be held at the University of Gdañsk. The venue offers good facilities for meetings, is not far from the centre of the town, easily accessible by car, tram or subway.

Gdañsk has a good connection with Warsaw both by train and plain, from some countries there are also direct flights to Gdañsk Airport (ca. 10 km from the centre of the town). The detailed information will be given later on.

Gdañsk is an old town famous for its gothic churches, Town Hall, Crane and lots of beautiful old buildings located in Old and Main Town. Within short distance form the town centre, there is a cathedral from the XIII century with the largest church organs in Europe.

As it is planned to have as many participants from central and eastern Europe there will be different possibilities of accommodation. There will be double rooms at the students' hostels (the prices (1998) per person per day are: 8.5 USD / first night, 6

ANNOUNCEMENTS

- International co-ordination of colour ringing for large gulls

Peter Rock, EURING colour marking co-ordinator for large Gulls (Lesser Black-backed, Greater Black-backed, Herring and Yellow-legged Gull) reminds all Ringing Schemes that ringers wishing to start a marking scheme should, in the first instance, get in touch with him.

If there are ringers operating schemes that are not already registered with him, they are kindly requested to register now, without delay. The role of co-ordinator was specifically set up to ensure that problems do not occur - although it appears that several projects have started without registration!

For further details please contact:

Peter Rock
59 Concorde Drive
Westbury on Trym
Bristol, BS10 6PX, UK
Email: ROCK@badmintonschool.co.uk

- Bird Ringing in the United Arab Emirates

The national ringing scheme of the United Arab Emirates - the Emirates Bird Ringing Scheme - is run under the auspices of the Government agency, the Environmental Research and Wildlife Development Agency, ERWDA.

Any proposed ringing activities in the country should first receive the approval of the Agency before commencing. Only qualified ringers will be permitted to ring, and all project proposals will be vetted by ERWDA before being permitted to start. Rings, logistical and other support can be arranged by ERWDA.

The colleagues at ERWDA express some concern related to a number of ad hoc ringing projects, which appear to be under consideration by foreigh ringers, without consultation with the Agency, although none seems to have actually started yet. Proposals for ringing projects, which should be sent to ERWDA, will be given full consideration.

Please contact Dr. Saif M. Al Ghais for any further information:

Dr. Saif M. Al Ghais, P.O.Box 45553,
Abu Dhabi, United Arab Emirates
Tel: +971 2 414441; Fax: +971 2 414131
E-mail: alghais@emirates.net.ae

- Data request on Mauritania and Mali

Dr Bruno Lamarche is trying to collect all existing information on ringing activities (and recoveries of ringed birds) in Mauritania and Mali. He has so far gathered over 600 cross-checked references, and he hopes to come out with an exhaustive work. A copy of the final volume will be sent to all those who will contribute data.

All available information should be sent to:

MINISTERE DE L'EDUCATION NATIONALE - **IGEST**
Inspection Generale de l'Enseignement
Secondaire et Technique
Discipline: **SCIENCES NATURELLES**
Bruno LAMARCHE
B. P. 4311 Nouakchott, Mauritanie

- Redundant computers and ringing equipment

Ringing in several countries is badly contrained by the shortage (or lack) of equipment. When data are collected, computers can then become a limiting factor for an efficient management and use of this information. All schemes are kindly asked to make all efforts to collect used mist nets and ringing equipment (pliers, rulers, pesolas) from their ringers, and check for possible redundant computers and software, to be distributed to the centres which are in need of. Please inform Fernando Spina at the Bologna scheme to organise contacts. Thanks for your help!

- Next issue of the EURING Newsletter

The EURING newsletter is an important tool to spread information within the ringers' community. We will only be able to try and keep this publication on a fairly regular basis if all schemes offer their contribution for the next issues.

Please send your comments, suggestions, ideas, articles and news to be included in the next issue (scheduled for spring 2000) to Fernando Spina within October 1999 at latest. Thanks for your help!

- Aknowledgments

I warmly wish to thank all those who contributed to the second issue of the EURING Newsletter. A special thank to Mrs. Maria Luisa Romagnoli, who helped in assembling the material in a camera-ready format.