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RESEARCH PAPER (REPORT)

SAFRING Ringing Report for 2017

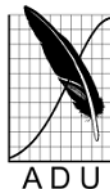
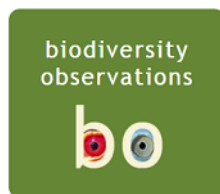
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SAFRING Ringing Report for 2017

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Following on from the 2016 SAFRING ringing summary (Paijmans et al. 2017), the SAFRING database has grown to 2,677,367 ringing records (initial, retrap, resightings and recoveries). This number is increased to 2,698,821 records when foreign scheme records stored in the database are included.

Ringling effort

In 2017 (1 January 2017 to 31 December 2017) SAFRING received 65,196 ringing records (54,018 birds ringed; 8,652 recaptured; 1,973 resighted; 553 recoveries) relating to 726 species (Figure 1). There was a notable decrease in record totals since 2016, with the greatest change being seen in the resighting count (colour ringed/tagged birds sighted in the field). As some records are still outstanding these values may differ in future summaries.

During 2017, 253 active ringers submitted records to SAFRING and thirty-one new ringers qualified (Figure 2). 103 ringers ringed over 100 birds, with 12 of these ringing more than 1,000 birds (Table 1). Most ringers ringed a variety of species distributed across southern Africa (Figure 3). The top ringer, Dr Ursula Franke-Bryson (ringer: 1240), ringed 3,761 birds and produced a total of 3,875 records. Dirk Heinrich (ringer: 573) had the greatest overall record count (4,375 records) and produced the most retraps (799 retraps) of any of the individual ringers. Dr Ursula Franke-Bryson ringed the most species during 2017 (215 species) followed by James Rawdon (ringer: 1607, 190 species) (Table 1).

The ringling effort has been well distributed across southern Africa (Figure 3), with most records (initial, retrap, resighting, recovery) originating from South African provinces and Namibia (Table 2). The South African province to produce the most ring records was Gauteng (9,850 records; Table 2), while KwaZulu-Natal had the most species records (279 species; Table 3).

Of the 54,018 initial records for 2017, most (97.7 %) had age categories assigned. 46,142 (87.4 %) of these were reported as adults and immatures with the remainder, 6,630 (12.6 %), being

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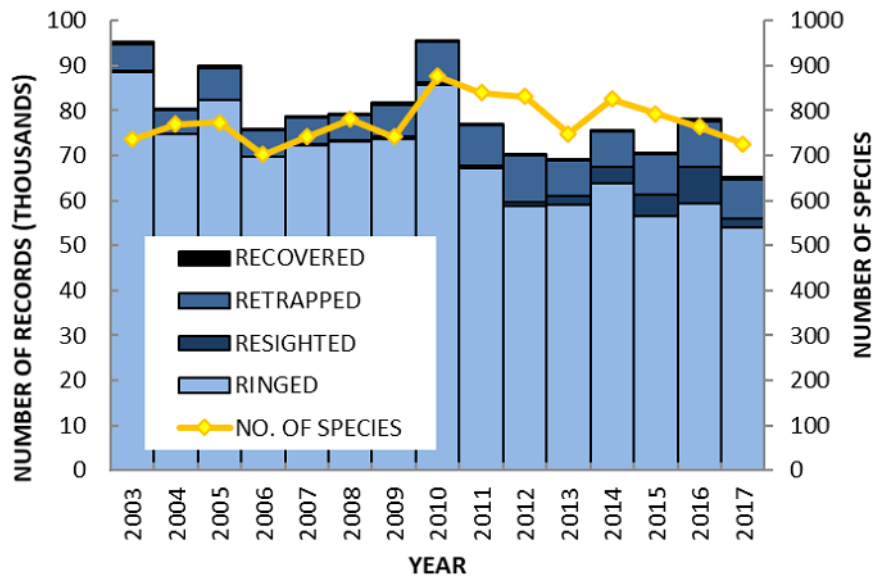


Figure 1: Trend in ringing effort over fifteen years from 2003 to 2017

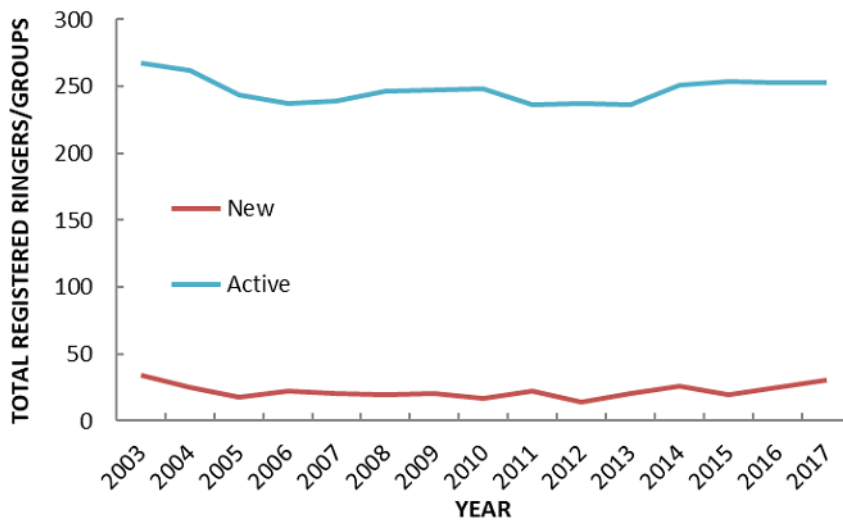


Figure 2: Number of active and new registered SAFRING ringers over fifteen years from 2003 to 2017

Table 1: Top 20 ringers/groups over the 2017 ringing year: Most bird records (ringed/ re-trapped and recovered). Code 1 = ringed birds, 2 = retraps, 4 = resightings, X = dead birds. DEA=Dept. of Environmental Affairs

Name	1	2&4	X	Species	Total
U Franke-Bryson (1240)	3761	112	2	215	3875
D Heinrich (573)	3562	799	14	116	4375
M Brown (1089)	1892	396	22	117	2310
J. Rawdon (1607)	1871	200	0	190	2071
DEA (870)	1603	0	0	2	1603
J Mulvaney (1622)	1487	22	0	75	1509
HD Oschadleus (32)	1431	197	0	109	1628
K Nelson (1540)	1400	186	2	151	1588
K Dixon (1278)	1087	134	2	71	1223
ML Marais (740)	1074	52	0	53	1126
M Pienaar (14997)	1054	228	1	115	1283
N Thomson (1476)	1045	498	1	51	1544
M Remisiewicz (1454)	996	302	23	105	1321
M McCall (266)	959	100	0	41	1059
H Bantjes (180)	766	56	2	91	824
C du Plooy (1120)	745	59	0	99	804
J Raijmakers (162)	741	50	0	118	791
D Engelbrecht (1245)	703	27	0	115	730
C Williams (1340)	619	34	0	105	653
R Covas (1007)	604	592	227	1	1423

reported as pullus (chicks) and juveniles. This difference is a result of most ringers favouring trapping (mist nets, snap traps etc) over ringing nestlings.

Several ongoing targeted research projects were undertaken in 2017, for example: sociable weavers (*Philetairus socius*) - Sociable Weaver Research Project, Cape gannets (*Morus capensis*)- Department of Environmental Affairs Republic of South Africa, albatross species - various island projects (Anonymous 2019), and vulture species - Vulpro. These inflated numbers were still surpassed by common species caught by Citizen Scientist ringers (Table 4).

Retrap/Resighting/Recovery Effort

Resightings of colour ringed birds increased the overall subsequent (retrap/resighting) numbers (Table 5). Foreign ringed birds sighted in southern Africa were predominantly common terns (*Sterna hirundo*) (27 reports) and Sandwich terns (*Thalasseus sandwicensis*) (61 reports), with several other interesting migrants being resighted in South Africa (Table 6). Most of the foreign tern sightings were reported by Mark Boorman (ringer: 572) in Namibia (Figure 4).

Of the 553 recovery records received; the most commonly recovered species were sociable weaver, kelp gull (*Larus dominicanus*), Cape gannet and laughing dove (*Spilopelia senegalensis*) (Table 4). Most recoveries did not have a known cause of death, with many being reported after washing up on beaches and others being found around residential areas (Table 7).

Table 2: Regional ringing effort (number of records) in the 2017 ringing year (all regions with over 100 SAFRING records)

Region	Initial records	Retraps/resights	Recoveries	Total	Percentage
South Africa (total)	36178	4784	454	41416	65
- Gauteng	8593	1212	45	9850	16
- Western Cape	7981	1025	95	9101	14
- KwaZulu-Natal	5852	919	21	6792	11
- Limpopo	3461	200	8	3669	6
- Eastern Cape	3121	215	15	3351	5
- North West	2951	400	11	3362	5
- Mpumalanga	2227	115	23	2365	4
- Northern Cape	1141	653	231	2025	3
- Free State	851	45	5	901	1
Namibia	8780	2397	38	11215	18
Seychelles	1380	296	5	1681	3
Zambia	835	12	2	849	1
Oceanic Islands	500	1848	13	2361	4
Botswana	265	39	0	304	0
Cameroon	194	21	0	215	0

Ringling papers

Fifteen peer-reviewed research articles were published during 2017, either using stored SAFRING data directly, or producing ringing data of their own and using SAFRING's services (Table 8). In addition to these publications four PhD theses were completed in 2017 assisted by SAFRING-related ringing data. SAFRING News (published in Biodiversity Observations) published 8 new bird ringing related articles. In addition to these publications, many other popular articles featuring bird ringing, were published in birding newsletters, magazines, and online.

Acknowledgements

We at SAFRING really appreciate all the effort of ringers and the general public (the latter for reporting recoveries) and would like to thank everyone that has taken part in ringing and resighting in southern Africa. During 2017, SAFRING was housed by the Animal Demography Unit and funded by the South African National Biodiversity Institute, and the Namibian Ministry of Wildlife and Tourism during 2017.

References

- Anonymous.** 2019. Conserving Southern Ocean seabirds, viewed 25/01/2019, http://www.fitzpatrick.uct.ac.za/fitz/research/programmes/maintaining_species_level/southern_ocean_seabirds.
- Paijmans DM, Catto S, Oschadleus HD.** 2017. SAFRING ringing report for 2016. Biodiversity Observations, 8 (36): 1-8. Available online at <https://journals.uct.ac.za/index.php/BO/article/view/458>

Table 3: Regional ringing effort in the 2017 ringing year (all regions with over 100 SAFRING records). Percentages of the total number of species do not total 100 due to representation of certain species in multiple regions.

Region	Ringers	Species	Spp/ringer	Birds/ringer	% of species
South Africa (total)	185	504	31	196	68
- Gauteng	63	204	24	136	28
- Western Cape	76	214	33	105	29
- KwaZulu-Natal	54	279	21	108	38
- Limpopo	50	253	23	69	35
- Eastern Cape	23	156	14	136	21
- North West	32	161	13	92	22
- Mpumalanga	46	232	18	48	32
- Northern Cape	22	56	4	52	8
- Free State	22	96	10	39	13
Namibia	33	190	14	266	26
Seychelles	12	20	7	115	3
Zambia	3	118	43	278	16
Oceanic Islands	6	11	4	83	2
Botswana	4	69	21	66	10
Cameroon	2	39	20	97	5

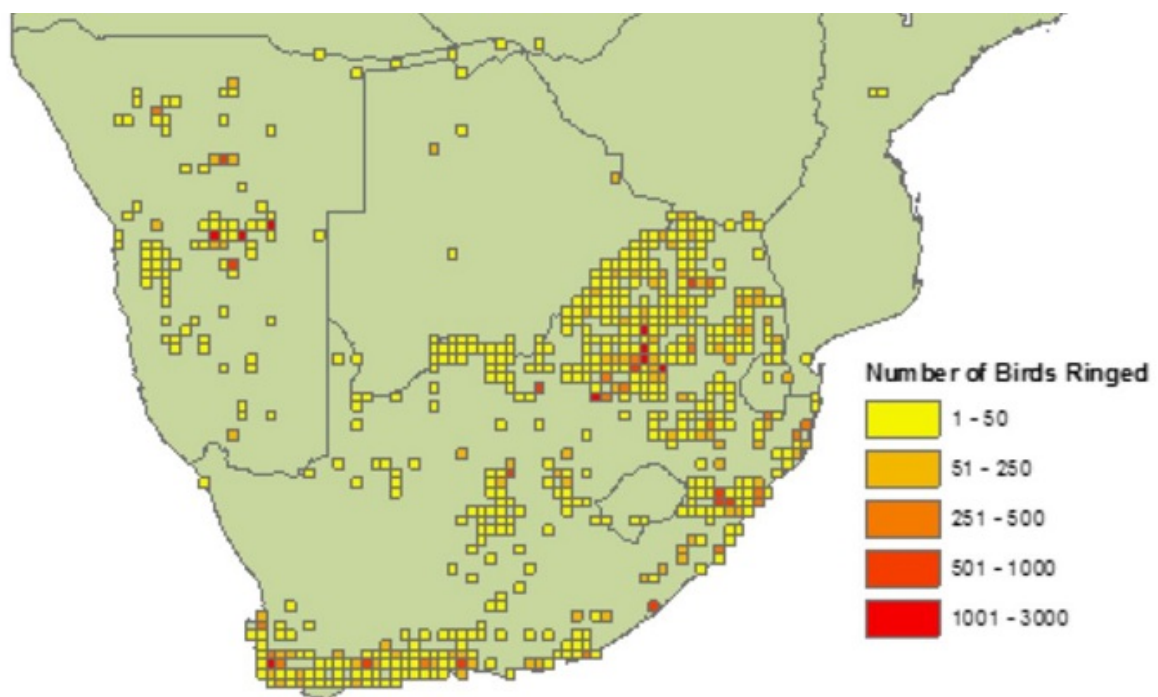


Figure 3: Distribution of ringing effort across southern Africa per quarter degree grid cell for the 2017 ringing period. The colour coding of the grid cell indicates numbers of birds ringed in it

Table 4: The most frequently ringed species over the 2017 ringing year. Code 1 = ringed birds, 2 = retraps, 4 = resightings, X = dead birds

Species	1	2&4	X	Total
Terrestrial				
southern masked-Weaver (<i>Ploceus velatus</i>)	4586	406	20	5012
red-billed quelea (<i>Quelea quelea</i>)	3112	14	0	3126
red-headed finch (<i>Amadina erythrocephala</i>)	2474	604	6	3084
Cape white-eye (<i>Zosterops virens</i>)	2211	210	9	2430
southern red bishop (<i>Euplectes orix</i>)	1993	235	4	2232
laughing dove (<i>Spilopelia senegalensis</i>)	1319	523	18	1860
Cape weaver (<i>Ploceus capensis</i>)	1223	118	5	1346
dark-capped bulbul (<i>Pycnonotus tricolor</i>)	1171	101	4	1276
blue waxbill (<i>Uraeginthus angolensis</i>)	830	133	1	964
Cape sparrow (<i>Passer melanurus</i>)	734	48	0	782
sociable weaver (<i>Philetairus socius</i>)	632	596	227	1455
Cape robin-chat (<i>Cossypha caffra</i>)	626	214	9	849
violet-eared waxbill (<i>Uraeginthus granatinus</i>)	601	18	0	619
village weaver (<i>Ploceus cucullatus</i>)	580	33	2	615
African reed-warbler (<i>Acrocephalus baeticatus</i>)	559	74	2	635
Marine				
Cape gannet (<i>Morus capensis</i>)	1614	2	24	1640
Hartlaub's gull (<i>Chroicocephalus hartlaubii</i>)	380	3	0	383
kelp gull (<i>Larus dominicanus</i>)	347	34	21	402
wedge-tailed shearwater (<i>Ardenna pacifica</i>)	273	65	0	338
Atlantic yellow-nosed albatross (<i>Thalassarche chlororhynchos</i>)	151	851	3	1005
white-tailed tropicbird (<i>Phaethon lepturus</i>)	142	41	2	185
sooty tern (<i>Onychoprion fuscatus</i>)	79	0	0	79
Kittlitz's plover (<i>Charadrius pecuarius</i>)	72	12	0	84
sandwich tern (<i>Thalasseus sandwicensis</i>)	70	525	2	597
southern giant-petrel (<i>Macronectes giganteus</i>)	66	553	1	620
Raptor				
barn owl (<i>Tyto alba</i>)	316	33	8	357
southern pale chanting goshawk (<i>Melierax canorus</i>)	310	19	1	330
white-backed vulture (<i>Gyps africanus</i>)	267	56	0	323
jackal buzzard (<i>Buteo rufofuscus</i>)	134	9	3	146
spotted eagle-owl (<i>Bubo africanus</i>)	124	48	4	176

Table 5: Conditions of retrap/resighting for the 2017 ringing year

Condition	Total
No other information	9069
Sighting: from camera trap	642
Sighting: of colour ringed bird	576
Sighting: of patagial tags	240
Sighting: ring number read in field	43
Incubating egg(s)	20
Controlled: and released	11
Caught: and released	7
Sick or injured: Taken to rehabilitation centre	6
Sick or Injured: no other information	5
Alive: found hanging from wire by thread around leg	2
Caught: flew into shop/house, released	2
Sick or injured: wing broken	1
Sick or injured: subsequent fate unknown	1
Collision: with a building	1
Caught: flew into building	1
Controlled: tracking device fitted, bird released	1
Exhausted: taken to rehabilitation centre	1
Exhausted: kept in captivity	1
Exhausted: bird released	1
Alive: bird found in possession of uninformed persons	1

Table 6: Foreign recoveries, retraps and resightings from South Africa during the 2017 ringing year. Values marked as unknown have not been received from relevant schemes. BTO: British Trust for Ornithology

Ring no.	Species	Sex	Ring/Resight	Date	Location	Stage	Entity
1428322	sandwich tern (<i>Sterna sandvicensis</i>)	Unknown	Ringing Resighting	2012-06-19 2017-02-09	5148N0404E 3407S1820E	Nestling/Pulli Unknown	Arnhem Scheme, Netherlands Mr A Tree, Western Cape
1442246	sandwich tern (<i>Sterna sandvicensis</i>)	Unknown	Ringing	2013-06-27	5148N0404E	Nestling/Pulli	Arnhem Scheme, Netherlands
1442662	sandwich tern (<i>Sterna sandvicensis</i>)	Unknown	Resighting Ringing	2017-03-12 2012-06-19	3417S1849E 5148N0404E	Adult Nestling/Pulli	Mr M Boorman, Western Cape Arnhem Scheme, Netherlands
1585280	sandwich tern (<i>Sterna sandvicensis</i>)	Unknown	Resighting Ringing	2017-11-27 2014-06-20	3435S1920E 5147N0408E	Adult Nestling/Pulli	Mr M Boorman, Western Cape Arnhem Scheme, Netherlands
1585453	sandwich tern (<i>Sterna sandvicensis</i>)	Unknown	Ringing	2015-05-26	3407S1850E	Adult	Mr M Boorman, Western Cape
1585463	sandwich tern (<i>Sterna sandvicensis</i>)	Unknown	Resighting	2017-10-12	5148N0404E	Adult	Arnhem Scheme, Netherlands
1588140	sandwich tern (<i>Sterna sandvicensis</i>)	Unknown	Ringing Resighting	2015-06-27 2017-10-30	5307N0453E 3407S1850E	Nestling/Pulli Adult	Arnhem Scheme, Netherlands Member of the public, Western Cape
1589465	sandwich tern (<i>Sterna sandvicensis</i>)	Unknown	Ringing	2016-06-25	5307N0453E	Nestling/Pulli	Arnhem Scheme, Netherlands
1590542	sandwich tern (<i>Sterna sandvicensis</i>)	Unknown	Resighting	2017-09-25	3407S1850E	Adult	Mr M Boorman, Western Cape
4592983	common tern (<i>Sterna hirundo</i>)	Unknown	Ringing Resighting	2016-06-23 2017-12-04	5148N0357E 3435S1920E	Nestling/Pulli 1 to 2 year	Arnhem Scheme, Netherlands Mr M Boorman, Western Cape
6A3484	sandwich tern (<i>Sterna sandvicensis</i>)	Unknown	Resighting	2017-10-16	Unknown	Unknown	Unknown
9933315	European storm-petrel (<i>Hydrobates pelagicus</i>)	Unknown	Recovery	2017-10-16	3248S1753E	Adult	Member of the public, Western Cape
99229736	common tern (<i>Sterna hirundo</i>)	Unknown	Ringing Resighting	Unknown 2017-11-13	Unknown 3434S1920E	Unknown Adult	Unknown Member of the public, Western Cape
A16170	osprey (<i>Pandion haliaetus</i>)	Unknown	Ringing Recovery	2017-12-08 Unknown	3404S2454E Unknown	Adult Unknown	SANCCOB, Eastern Cape Unknown
AT217135	common tern (<i>Sterna hirundo</i>)	Unknown	Recovery	2017-12-07	3425S1908E	Adult	Bruxelles Scheme, Western Cape
DB93011	Caspian tern (<i>Sterna caspia</i>)	Unknown	Ringing	2016-07-13	5826N2714E	Nestling/Pulli	Estonian Bird Ringing, Estonia
DD44529	Caspian tern (<i>Sterna caspia</i>)	Unknown	Recovery	2017-01-27	2857S3146E	Unknown	ADU non ringer, KwaZulu-Natal
DD44558	sandwich tern (<i>Sterna sandvicensis</i>)	Unknown	Ringing Resighting	2008-06-28 2017-02-17	6035N2144E 3205S1818E	Unknown Unknown	Helsinki Museum, Finland Mr Y. Chesselet, Western Cape
DD78255	sandwich tern (<i>Sterna sandvicensis</i>)	Unknown	Ringing Resighting	2000-06-20 2017-02-12	5720N0159W 3406S1849E	Nestling/Pulli Adult	Member of the public, United Kingdom Prof D Cyrus, Western Cape
DD92438	sandwich tern (<i>Sterna sandvicensis</i>)	Unknown	Ringing Resighting	2010-08-30 2017-02-12	5720N0159W 3407S1849E	Adult plumage Adult plumage	Member of the public, United Kingdom Prof D Cyrus, Western Cape
DE23529	sandwich tern (<i>Sterna sandvicensis</i>)	Unknown	Ringing Recovery	2010-08-30 2017-02-17	5719N0159W 3407S1850E	Adult plumage Adult plumage	BTO, United Kingdom Prof D Cyrus, Western Cape
DE52988	sandwich tern (<i>Sterna sandvicensis</i>)	Unknown	Ringing Resighting	Unknown 2017-09-22	Unknown 2849S3204E	Unknown Nestling/Pulli	Unknown Member of the public, KwaZulu-Natal
DN56796	sandwich tern (<i>Sterna sandvicensis</i>)	Unknown	Ringing Resighting	2013-07-17 2017-02-01	5537N0138W 3434S1921E	Unknown Unknown	BTO, United Kingdom Mr A Tree, Western Cape
DT02729	sandwich tern (<i>Sterna sandvicensis</i>)	Unknown	Ringing Recovery	Unknown 2017-03-30	Unknown 3407S1849E	Unknown Unknown	Unknown BTO, Western Cape
FT67249	elegant tern (<i>Thalasseus elegans</i>)	Male	Ringing Resighting	2014-05-09 2017-12-16	5719N0159W 3407S1850E	Adult plumage Adult plumage	BTO, United Kingdom Member of the public, Western Cape
HN53498	common tern (<i>Sterna hirundo</i>)	Unknown	Ringing Retrap	2017-12-19 2017-01-27	3421S1904E 3373S1843E	Adult plumage Juvenile	Member of the public, Western Cape SANCCOB, Western Cape
K6P7778	barn swallow (<i>Hirundo rustica</i>)	Male	Ringing	2017-12-19	3421S1904E	Adult plumage	Gdansk/Varsovia, Poland
NL1672	sandwich tern (<i>Sterna sandvicensis</i>)	Unknown	Retrap Ringing	2014-09-14 2013-06-25	5232N1913E 5148N0357E	Adult plumage Nestling/Pulli	Member of the public, KwaZulu-Natal Arnhem Scheme, Netherlands
PL00806	sandwich tern (<i>Sterna sandvicensis</i>)	Unknown	Resighting Ringing	2017-12-25 2017-12-08	3435S1920E 3433S1921E	Adult plumage Unknown	Mr M Boorman, Western Cape Unknown
RE3685	barn swallow (<i>Hirundo rustica</i>)	Unknown	Ringing Retrap	2016-09-24 2017-03-26	4033N0315W 2541S2903E	Adult plumage Juvenile	Member of the public, Western Cape Bird Ringing Office Spain ICONA, Spain
TA12113	white stork (<i>Ciconia ciconia</i>)	Unknown	Ringing	2017-03-26	4540N1824E	Nestling/Pulli	Dr M Remisiewicz, Mpumalanga
VN8213	white stork (<i>Ciconia ciconia</i>)	Unknown	Ringing Recovery	2016-06-17 2017-01-05	2742S2959E 2742S2959E	Adult plumage Unknown	Zagreb Scheme, Croatia Member of the public, Western Cape
YE41RE41	osprey (<i>Pandion haliaetus</i>)	Unknown	Ringing Resighting	Unknown 2017-04-30	Unknown 3420S1905E	Unknown Adult plumage	Unknown Member of the public, KwaZulu-Natal
							St. Petersburg, Russia
							Member of the public, Western Cape

Table 7: Causes of bird mortality over the 2017 ringing year

Finding Condition	Total
Died: cause of death unknown	426
Carcass: found beached, cause of death unknown	20
Carcass: dead less than one week	15
Collision: with motor vehicle (or found next to road)	9
Collision: with a window	8
Killed or attacked by: domestic cat	7
Died: of natural Cause	7
Sick or injured: Euthanised	6
Sick or injured: subsequently died	6
Carcass: ring found with just part of carcass or skeleton	6
Died: drowned	5
Died: on long line from fishing vessel, drowned	4
Ring found: no sign of carcass or skeleton	4
Died: electrocuted	3
Died: of avian cholera or other disease	3
Killed or attacked by: wild mammal	3
Died: in, or near nest	3
Died: as a result of ringing activities	2
Killed or attacked by: domestic dog	2
Carcass: partly eaten by scavengers	2
Shot: no reason given	1
Shot: for sport	1
Poisoned: unintentionally, bait intended for other animal	1
Killed: by predator while in mistnet or ringing	1
Sick or Injured: leg broken	1
Sick or injured: subsequent fate unknown	1
Ring number reported, no further details	1
Killed or attacked by: domestic animal	1
Collision: with a building	1
Victim of weather: due to wind (or storm)	1
Victim of weather: due to cold	1
Died: at rehab centre, recovery site unknown	1

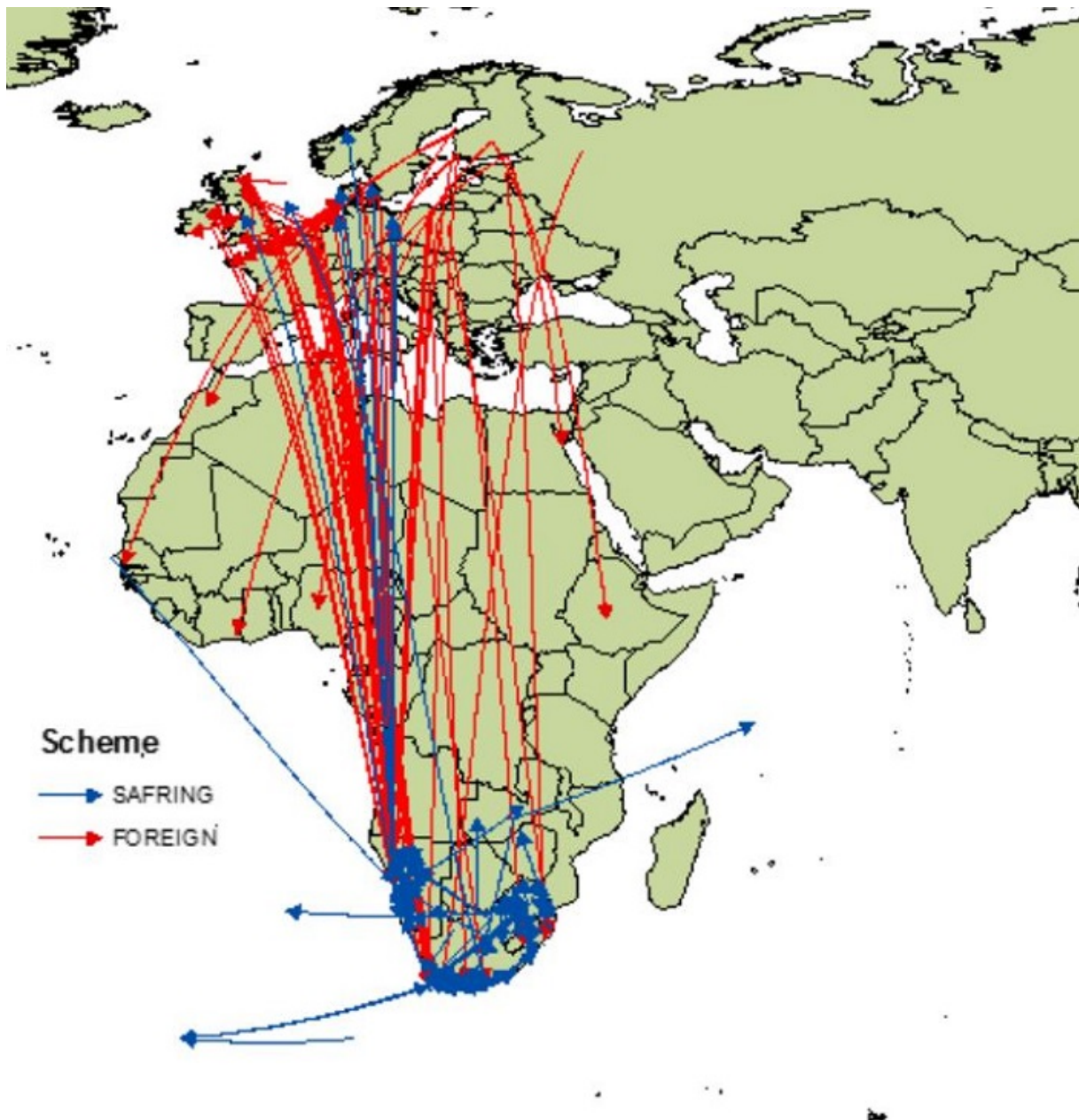


Figure 4: Positions/directions at which birds with SAFRING and FOREIGN rings were initially ringed and retrapped/recovered/resighted, for the 2017 ringing year.

Table 8: Scientific (peer-reviewed) publications produced utilising records (either self-produced or archived) within the SAFRING database for the year 2017. Note: This list may not contain all publications. *Reports that only produced their own SAFRING records

Author(s)	Title	Journal/Institution
Peer-Reviewed Papers		
Pajmans DM, Catto S, Oschadleus HD	SAFRING longevity and movement records for southern African vultures (subfamilies Aegypiinae and Gy-paetinae)	Ostrich 88(2), 163-166
*McPherson SC, Brown M, Downs CT	Gender-related morphometric differences in mature and nestling Crowned Eagles, with comments on ring-ing of eagle nestlings in KwaZulu-Natal, South Africa	Ostrich 88(3), 195-200
*Turner WC, Küsters M, Versfeld W, Horak IG	Ixodid tick diversity on wild mammals, birds and rep-tiles in and around Etosha National Park, Namibia	African Journal of Ecology 55(4), 714-721
Tatayah V, Brown R, Le Corre M, Nicoll M, Jones CJ	Body mass and pectoral muscle size changes in African waterfowl during moult.	South African Journal of Wildlife Research 47(1), 24-31
*Hirschauer MT, Wolter K, Nesar W	Natal philopatry in young Cape Vultures <i>Gyps co-protheres</i>	Ostrich 88(1), 79-82
*Pfeiffer MB, Venter JA, Downs CT	Observations of microtrash ingestion in Cape Vultures in the Eastern Cape, South Africa	African Zoology 52(1), 65-67
Thompson LJ, Downs CT	Altitudinal variation in metabolic parameters of a small Afrotropical bird.	Comparative Biochemistry and Physiology Part A: Molecular & Integrative Physiology 212, 88-96)
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