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Newsletter 36, July 2014

Photo by G. Darling

January 2014 count

Overall the weather throughout the country was fine, with some very wet conditions in the North eastern part of the Eastern Cape and hot and windy in the Free State. The interim report on the summer 2014 count can be found at

http://www.adu.org.za/docs/CAR_Summer_2014_count.pdf

Ringed Cranes

Two ringed cranes were spotted during the summer count. The one was on route ES10, unfortunately the ring combination hasn't been matched yet. The other crane was seen on OV01 by Inès and Duncan Cooke; the crane was ringed as a chick in 2008 on the Rooiwal farm (Bredasdorp area) by Kevin Shaw. Do keep a look out for colour-ringed birds at all times and report the details to SAFRING

<http://safring.adu.org.za/index.php>

Date of winter 2014 count

The next count will be on Saturday, 26 July 2014. Start your count 1-2 hours after sunrise! The next winter count will be Saturday, 26 July 2014. If you can't count on 26 July, please contact your Precinct Organiser well in advance.

The CAR webpage

It is helpful adding the CAR home page to your favourites in your browser <http://car.adu.org.za> All the project material can be found here and can be downloaded. There is now also a FAQ section available.

CAR is also on Facebook,

<http://facebook.com/groups/CoordinatedAvifaunalRoadcounts/>

Here you can share your counting experience and interact with fellow CAR participants.

Overview of the count - Les Underhill

This is the second CAR survey that Amour McCarthy has been responsible for. Thank you, Team CAR, for the wonderful support you gave her with the January count. In the winter survey for 2013, a total of 295 routes were covered; in summer 2014, the number of routes was 285. The fall off in number of routes covered was mainly in the NE Free State Precinct (22 down to 16) and in the S Free State (62 down to 57). It seems that many of these were done, but the data have not been submitted. Unfortunately, the two routes in the small precinct in North West Province were not covered.

This is an overview of the CAR summer count, made on 25 January 2014. The 285 routes for which we have data represented a total of 15 760 km, a little bit longer than the distance from Cape Agulhas to the North Pole (which is about 14 000 km). This is an enormous distance on which to base the trend analysis. If we estimate that, on average, CAR observers see the birds out to about 500 m on either side of their route, the total area surveyed is 15 760 km². This is 1/77th of the total surface area of South Africa, or 80% of the area of the Kruger National Park. There is no other survey of its type which can begin to hold a candle to CAR. Thank you, citizen scientists, for your amazing and sustained contribution to this project.

The grand total number of birds included in the January 2014 survey was 31 978, thirty-two thousand for all practical purposes. The January 2014 survey was the first summer survey in which five species of "pole-sitting raptors" and the three corvids were included in all precincts. They totaled 7311 birds, 23% of the total count. This is a sizeable addition to the total number of birds that would have been included under the old regime, but it does not seem an overwhelming extra burden on counters. So we plan to make their inclusion in the CAR species list permanent. This will be the only nationwide project gathering reliable trend data on these species, so the data being collected is certainly going to prove incredibly valuable.

Count results Summer 2014

Total number of Species per Precinct

Precinct	Total km	BC	CC	WC	DB	LB	KB	SBK	UK	NBK	WBK	BBK	KK	BHH	SEC
Eastern Cape	1718.1	397	258	0	54	39	10	35	14	45	0	0	24	213	18
NE Free State	881	11	15	0	3	0	0	0	10	46	3	0	0	161	4
S Free State	3719.5	228	13	0	0	61	2	0	168	1531	0	0	3	104	35
NW Free State	1031.4	2	1	0	0	0	0	0	10	526	0	0	0	58	3
Gauteng	1201	0	0	0	0	0	0	0	1	142	1	0	0	95	2
KwaZulu Natal	2016.7	11	241	14	10	0	0	0	0	0	1	1	0	155	14
Mpumalanga	1419	10	31	2	2	0	0	3	9	15	1	2	0	87	6
Eastern Karoo	406	249	0	0	2	7	0	10	7	61	0	0	0	0	6
Overberg	1767.1	2280	0	0	59	0	0	2	0	0	0	0	9	421	9
Swartland	808.9	204	0	0	0	0	0	0	0	0	0	0	0	72	3
Western Cape	720.5	200	0	0	3	1	0	5	0	1	0	1	21	52	3
TOTAL	15689.2	3592	559	16	133	108	12	55	219	2367	6	4	57	1418	103

Three species made up the bulk of the 7311 “extra” birds; Steppe Buzzard (20.7%), Pied Crow (28.9%) and Cape Crow (33.1%) comprise 82.7%. This being the summer survey, the Steppe Buzzards were out in force, and a total of 1516 were counted, of which more than half, 850, were in the “wheatbelt” precincts of the Western Cape, the Overberg and the Swartland.

There were 2114 Pied Crows, compared with 1746 in the July 2013 survey. Pied Crow numbers per precinct were similar between the summer and winter surveys. There were 2417 Cape Crows in the summer survey; this figure is uncannily close to the 2413 counted in July 2013.

Precinct	Total km	SPBZ	JKBZ	BSKT	HAR	PCG	WNR	PICW	CPCW	WS	BS	MS	BI	YS	AS	HG	NS	SS	CF	ORF	SG	
Eastern Cape	1718.1	158	81	25	4	35	39	184	584	1541	1	2	0	0	0	0	0	0	0	0	0	213
NE Free State	881	24	8	25	0	0	0	0	148	158	0	0	174	0	0	0	0	0	0	0	0	93
S Free State	3719.5	130	16	44	2	50	0	931	0	834	0	0	0	3	2530	0	0	0	0	0	0	622
NW Free State	1031.4	43	9	18	0	4	0	13	0	27	0	0	0	0	52	395	0	0	0	0	0	171
Gauteng	1201	48	3	59	0	0	0	73	12	34	0	0	2	1	38	0	1	1	0	0	0	69
KwaZulu Natal	2016.7	95	64	17	0	2	84	126	513	1333	0	0	206	0	0	153	0	9	2	0	0	268
Mpumalanga	1419	117	27	46	0	0	0	2	123	166	0	0	371	0	17	249	0	10	0	12	0	174
Eastern Karoo	406	4	3	1	0	12	6	139	0	40	0	0	0	0	0	0	0	0	0	0	0	255
Overberg	1767.1	605	191	40	14	6	83	51	769	4216	1	0	0	0	0	0	0	0	0	0	0	889
Swartland	808.9	245	71	26	4	0	27	475	0	1	0	0	0	0	0	0	0	0	0	0	0	524
Western Cape	720.5	47	24	13	0	26	55	120	268	64	1	0	0	0	0	0	0	0	0	0	0	95
TOTAL	15689.2	1516	497	314	24	135	294	2114	2417	8414	3	2	753	4	2637	797	1	20	2	12	3373	

Total distance travelled and number of Routes counted of each Precinct

Precinct	Summer 2013		Winter 2013		Summer 2014	
	Total distance	No of Routes	Total distance	No of Routes	Total distance	No of Routes
Eastern Cape	2291	42	1700	33	1718.1	33
NE Free State	1110	18	1274.5	22	952	16
S Free State	4252	64	4078	62	3719.5	57
NW Free State	1021	16	795.5	13	1031.4	17
Gauteng	1241	26	1256.5	26	1201	25
North West	44	1	104	2	0	0
KwaZulu Natal	2042	36	1954.03	33	2016.7	34
Mpumalanga	1510	24	1375	22	1419	23
Eastern Karoo	287	15	420	21	406	19
Overberg	1742	32	1748	32	1767.1	32
Swartland	1052	17	808.9	14	808.9	13
Western Cape	769	18	646.4	15	720.5	16
TOTAL	17361	309	16160.83	295	15760.2	285

However the numbers per precincts differed markedly. In the Eastern Cape, with almost exactly the same distance covered, 584 Cape Crows were counted in summer, compared to 245 last winter. In contrast, the pattern was in the opposite direction in the NE Free State precinct: 637 last winter, down to 148 in January; expressed in birds per 100 km, this is a decrease from 50.0 to 16.8 birds/100 km. No one has ever seriously suggested that Cape Crows undertake regular seasonal migrations; apart from Andrew Jenkins and I writing in the bird atlas in 1997 that there is “some evidence for a north-south movements.” This was based on small changes in reporting rates. It would be premature to claim that the CAR project has confirmed our speculation. We need to keep these CAR surveys going in perpetuity; amazing patterns are emerging.

So I encourage every regular CAR route counter. Please make a special effort to survey your route on Saturday 26 July.

Thank you!

Thanks so much for all the participants continuing to count their CAR routes! It has also helped enormously that so many of you have been capturing your own counts online. It has been a pleasure working with the CAR Team and getting to know everyone. There are so many people working “behind the scenes” to keep CAR on track; thank you Les and Sally for your contribution to the Newsletter, Michael and Rene for the maintenance of the CAR and myBirdPatch pages and for summarizing the data, Donella for your continued advice and support, the Precinct Organisers for doing an amazing job with keeping everything going in your areas. And then of course the participants – thanks to your hard work and dedication CAR is still going strong!

Kind Regards,
Amour McCarthy



Secretarybird paper published in PLoS ONE

- Sally Hofmeyr

Following on from my PhD, in which I used CAR and SABAP data to look at the population trends and habitat use of six species of large terrestrial birds, I did a postdoc on Secretarybirds. For that project I worked with Craig Symes and Les Underhill. We used SABAP data to look at population trends across South Africa, and CAR data to look at habitat use. (One of the findings of my PhD was that CAR project data are unfortunately not suitable for looking at population trends in species like the Secretarybird, which are thinly distributed and move around a lot. The habitat use data, however, are very useful, and of course we don't get that from SABAP!) We published our findings in the online open-access journal, PLoS ONE, and you can find it by searching for journal.pone.0096772. There is also a slideshare presentation about it, here: <http://www.slideshare.net/SallyHofmeyr/secretarybirds-and-citizen-science-in-south-africa>.

The SABAP data suggest that Secretarybird populations are declining across most of South Africa, and worryingly, they seem to be declining most severely in the Kruger Park – supposedly a haven for large raptors. The CAR data showed that Secretarybirds on the whole prefer natural veld to transformed land*. This is probably no big surprise to you! In the Western Cape, a bit more than half of the Secretarybirds seen on CAR counts were on transformed land (usually stubble fields, pasture, or fallow land), but despite this, the numbers still show that they actually prefer natural veld (it's just that there's so little of that left in the W Cape). What this tells us is that Secretarybirds are at least able to adapt to cultivated land in that province, whereas they do not seem to be nearly as happy in agricultural areas in the rest of the country.

Our overall conclusion was that the main cause of the decline is probably habitat loss. In much of the country this has come about because of agriculture, but in the east and north-east especially, it is probably more a result of bush encroachment, which is related to climate change. This is the only plausible explanation we have come up with so far for the declines in the Kruger Park.

Whatever the reasons for the decline, we are a lot closer to understanding the situation thanks to the dedicated CAR counters and the valuable data you all collect – so thank you, thank you, thank you!!



Photo by V. Jessnitz

ADU Citizen Scientist Days 2014

Johannesburg, 09h00 on Saturday 16 August 2014, at the Walter Sisulu National Botanical Gardens

Cape Town, 09h00 on Saturday 20 September 2014, at the Intaka Island Environmental Education Centre, Century City

This is an event at which we will look both backwards and forwards. The event is a celebration of the role which our citizen scientists play in our projects.

The past year has seen the publication of the "butterfly atlas" and the "reptile atlas." The bird atlas has come of age, in that there is now enough data to do meaningful statistical comparisons between bird distributions in the first and second bird atlas projects. The changes go way beyond anyone's wildest expectations. LepiMAP, the extension of butterfly atlas has been launched. MammalMAP has a key role to play in the new Red Listing exercise of South Africa's mammals. We will tell you about a new citizen science project, which we will do in partnership with UCT's Plant Conservation Unit, which is tentatively called RePhotoSA. There is lots to share, and there is lots to look forward to!

Please attend, and please encourage other citizen scientists, active or potential, to attend. Please register for the event, mainly to help our planning for the number who will be attending – http://adu.org.za/workshop_registration.php

This page contains the logos of the projects of the Animal Demography Unit. Are able to identify them all? The ones you are likely to have the most trouble with are those for taxa for which we have Virtual Museums: SpiderMAP for spiders, ScorpionMAP for scorpions, LepiMAP for butterflies and moths, OdonataMAP for dragonflies and damselflies, FrogMAP for frogs, ReptileMAP for reptiles, etc, etc.

Please take your camera with you on Saturday (and in fact whenever you go into the countryside) and try to get photos. So long as you think there is a good chance that the species is recognizable in the photo graph, it should be uploaded to the ADU Virtual Museum. You do not need to be able to identify the species. Your email/password combination enables you to log onto the Virtual Museum website at <http://vmus.adu.org.za> – this link gets you to a set of instructions for uploading your photos <http://www.slideshare.net/meganloftieeaton/how-to-submit-records-to-the-animal-demography-units-virtual-museums-28710898> You do not need to "download" the slideshow, you just click on the arrows below each slide.

