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COORDINATED WATERBIRD COUNTS (CWAC)

NEWSLETTER 24

JUNE 2004

Dear CWACers

As most of you might know by now, the Avian Demography Unit (ADU) has appointed a new Coordinated Waterbird Counts (CWAC) coordinator since February 2004. Marius Wheeler has taken up this position and hope to continue the good work that has been done in the past by various people. As some of you might remember, the CWAC project started out in 1992 as part of the African Waterbird Census (AfWC), which was launched in 1991 by Wetlands International (WI). In the early days James Harrison, Sue Kieswetter and Marja Wren-Sargent jointly managed it. In 1999, Doug Harebottle was appointed as the first full time Project Coordinator.

Many thanks to all the compilers and counters for constantly providing us with the necessary information. Your commitment and support for this project, has made it the success it is today!

Newsletter format changes

For those that have noticed, yes the Newsletter has changed. Apart from the slight layout changes to the heading, the accompanying tables at the back have also been enlarged. The biggest change however is that the Newsletter is now produced in Microsoft Word. This will enable us to send it out via E-mail, thereby reducing printing costs, and hopefully reaching more people faster. It is also available on our website in this format, as well as PDF format, which is downloadable with Adobe Acrobat reader. If there are any queries about these changes, please feel free to contact us.

New CWAC Coordinator

Doug Harebottle, who has coordinated CWAC since 1999, has moved to a new post within the Avian Demography Unit. He is now AFRING Waterbird Ringing Coordinator, an activity funded by the African Eurasian Waterbird Agreement. Doug will retain a strong interest in CWAC, and will remain the representative for southern Africa on the committee that coordinates the African Waterbird Census. This is a committee of Wetlands International. Doug's primary responsibility now is to initiate waterbird ringing in Africa, and one of the first activities is going to be a ringers' training course on the coast of Kenya.

We welcome Marius Wheeler to the ADU. Marius has a strong background in nature conservation. For the main project in his nature conservation diploma, he did studies of the African Black Oystercatcher at Walvis Bay in Namibia. He has also been previously involved with CWAC as well as BIRP while working with the Western Cape Nature Conservation Board. We wish him all the best.

It is nice to have an opportunity to write a paragraph in the CWAC Newsletter! Here at the ADU, we are deeply grateful for your commitment to CWAC and to all the other ADU projects. From our side, we are doing our best to curate the data you collect, to combine it together in such a way that the whole is far greater than all the individual parts would ever be, and to use all this information to promote the conservation of birds. Thank you, team.

Les Underhill, ADU Director

Summer 2004 count

The summer 2004 count has gone smoothly. A total of 291 sites has been counted which, to date, has yielded 404 086 individual birds. See accompanying tables for the results. Summer 2003 saw a total of 317 sites counted with the total count being 417 856. Keeping in mind that the Northern Cape has not yet submitted its data, the total number of sites counted, as well as the total number of birds counted this summer, could very well surpass the 2003 summer count.

The summer 2004 count included 17 sites with zero counts due to the sites being dry and 10 sites unable to be counted at all. However, please remember to fill in a census form even if the site was dry and a zero count was recorded. This information is extremely important for seasonality purposes. The same holds true for any site that could not be counted for whatever reason.

There are 19 counts still outstanding and these have been indicated in the accompanying tables. This does not include the Northern Cape counts. If you still need to submit results, please do so as soon as possible. Furthermore, there were 27 new sites registered in the last count. These are also indicated in the tables in italics.

Table 1. Number of new sites per province.

Province	New sites
Kwazulu-Natal	13
Western Cape	12
Mpumalanga	2
Total	27

Well done to all the people involved in getting these new sites covered, especially Richard Dobson and officials from Kwazulu-Natal (KZN) Wildlife, for covering the many estuaries on the Southern KZN coast.

Interesting Reports

Krom River Mouth (Eastern Cape)

The Krom River Mouth is situated just north of Sea Vista, near Cape St. Francis. Chuck Cook and a number of dedicated observers count this site regularly and use a team on a boat, as well as, counters on foot. Last summer's count saw 14 591 birds counted, with an impressive 38

waterbird species recorded. Some of the interesting species included Common Whimbrel (100), Sanderling (88), Ruddy Turnstone (16), Red Knot (10), African Black Oystercatcher (9), Goliath Heron (4) and Osprey (1). Of particular significance was the 13 000 Common Terns which were counted. This is an exceptionally high number of birds of this species for any site, and according to the latest Waterbird Population Estimates (2002), represents about 2.03% of the Sub-regional population.

Deelpan (Free State)

Deelpan is situated just off the R48, near the town of Petrusberg in the Free State. It is a private farm dam, which forms part of the various waterbodies counted by Brian Colahan. This summer saw 7 582 birds counted there, of which 7 520 were Ruff! This is a good example of how ephemeral wetlands can quickly attract birds in their thousands, and as it dries up, the birds disperse again to other areas. This emphasises the point that, especially in the drier parts of South Africa, it might be worthwhile counting wetlands on a quarterly basis rather than only twice a year.

Krugersdrift Dam (Free State)

As with many of the big waterbodies in the Free State, Krugersdrift dam had high numbers of Anatidae (ducks and geese). A total of 2 173 South African Shelduck and 1 537 Egyptian Geese were recorded in the 2004 summer count.

The 2 173 Shelduck, which is a southern African endemic, constitutes 4.3% of the global population according to the Waterbird Population Estimates (2002), and is probably one of the highest counts for this species for CWAC.



Bloemhof Dam (SA039) (Free State)

The Bloemhof Dam is one of the big dams in the Vaal River. Situated in the northwestern Free State, just outside the town of Bloemhof, it is an enormous impoundment, covering an area well over 20 000 ha when full. The first CWAC count was done in 1992, and since then it has been counted regularly. CWAC counts are only done on a part of the dam.

This summer (2004), saw Brian Colahan and his team, count a record number of birds for this site. A total of 47 008 birds were counted on the 25th of February between 07:35 and 18:00. Talk about a full days work! According to the CWAC records, it is also the highest count for any site ever received in South Africa. A big thank you to everybody involved in making this possible! Table 2 highlights some of the species recorded.

Table 2. Some species recorded at Bloemhof Dam, summer 2004. The percentages indicated, are the proportion of the Sub-regional population as per IBA and Ramsar standards.

Species	Count	IBA %	Ramsar %
White-breasted Cormorant	2 723	0.54	22.69
Greater Flamingo	1 038	0.83	1.36
Lesser Flamingo	799	0.03	1.33
South African Shelduck	2 854	6.79	5.70
Cape Shoveller	895	2.55	2.55
Curlew Sandpiper	13 077	1.74	3.96
Little Stint	5 589	0.55	0.55
Ruff	12 155	0.60	0.60
Pied Avocet	836	3.34	4.40
Black-winged Stilt	632	0.63	2.74
Grey-headed Gull	775	0.77	0.25
Caspian Tern	91	0.67	6.06
White-winged Tern	4 213	2.10	0.21

The reason why this site is a Global IBA is clearly visible. Apart from this, the area also supports other Global and National threatened bird species.

Daybreak Farm Dam (Mpumalanga)

One of the new sites counted by Andy McLetchie. This private dam boasted an impressive 2 267 birds. Twenty eight species were recorded, with some of the highlights being Greater Flamingo (704), White-winged Tern (390), Southern Pochard (207), Cattle Egret (180) and Sacred Ibis (98). There has also been breeding observed for Moorhen, Cattle Egret, Black-headed and Grey Herons, as well as, Sacred Ibis. It is worth noting that the number of Greater Flamingo exceed the 0.5% threshold for category C4 Sub-regional Important Bird Area (IBA), while the Southern Pochard are just 43 short of the same level. This is indeed an interesting site, and definitely requires further monitoring.

Blinkpan-Lothair (SA019) (Mpumalanga)

This is another small pan in Mpumalanga, which did not deliver much in terms of numbers of species, but 124 Greater Flamingo and 600 Lesser Flamingo were recorded, the latter reaching the 1% Ramsar threshold for southern Africa. This pan also falls within the Chrissie Pans (SA019) IBA.

Blinkpan-Arnot (Mpumalanga)

Situated close to Blinkpan-Lothair, Blinkpan-Arnot had 620 birds, with 569 being Greater Flamingo. Again, this illustrates how important this pan veld area in Eastern Mpumalanga is for flamingos.

SASOL Vaal Dam bird count

In mid-January, BirdLife Vaal Dam, launched a “few” boats to say the least! Twenty boats set out to cover this impressive dam, and all returned later with an impressive 10 034 birds counted. This is a huge effort, and we thank everybody, especially Tony Jones who was the compiler, for getting this count done. According to BirdLife SA, the Vaal Dam meets the criteria for an IBA, and will be added to the 122 sites in South Africa. Well done BirdLife Vaal Dam - keep up the good work!

Why...When...Where...do we CWAC?

These three questions have come up in many discussions before. Ultimately, we need to understand the “Why” part, before we can figure out “When” and “Where”.

CWAC is a project aimed at monitoring waterbird populations at wetlands around South Africa and involves identifying a suitable wetland/water body and counting the waterbirds at this site. Results from the counts hope to give us an indication as to population sizes for some of our waterbird species and to see if there is any seasonal variation at sites and if so, can this be indicative of local or long distance movement. It also allows us to collect information about the status of the wetland and identify the threats facing waterbirds and wetlands.

Now that we have a better understanding as to why we count wetlands, we can move on to answer the “When” part. This comprises two different sections:

1. Time of Year

When the CWAC project started in 1992, the aim was to do two counts per year, one in mid-summer and one in mid-winter. This count regime was based on counts being done in Europe, as part of the Western Palearctic and South Western Asia Waterbird Census. Although this provides useful information, we have since realised that in many instances, this only provides us with half the picture. South African climatic conditions are very different from those in the Northern hemisphere. The main factor of concern is that many of South Africa’s wetlands are ephemeral, and therefore show massive fluctuations in the numbers and composition of waterbirds they support. This is mainly due to the fluctuating water levels.

To capitalize on fluctuating waterbird numbers, we need to count more regularly. By doing quarterly or monthly counts, or even non-scheduled *ad hoc* counts, we can get a much clearer picture of population size and seasonal movements of birds. It will also help to determine more precisely when certain wetlands play a vital role in supporting waterbirds.

2. Time of day

Another important factor to take into account when counting a CWAC site is the time of day when the count is being done. Often wetlands act as roost or breeding sites. The numbers of birds seen during normal daylight hours may differ extensively from numbers present during the night.

A recent example of this was recorded at Edith Stephens Wetland Park in the Western Cape. The May 2004 CWAC count, conducted in the morning from about 07:35 revealed reasonable numbers of White-breasted Cormorant, Reed Cormorant, Sacred Ibis and Cattle Egret. However, as soon as evening came, the picture changed dramatically with a 4-5 fold increase in the numbers of those species that roost at this wetland; see Figure 1.

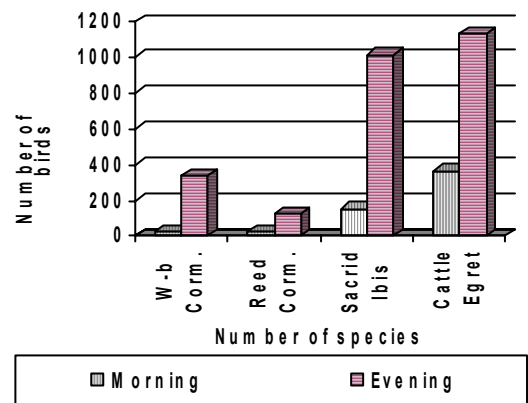


Figure 1. Diurnal fluctuations in bird numbers for four species at Edith Stephens Wetland Park, May 2004.

Figure 1 clearly illustrates how the numbers of birds using a specific site may change during a normal 24-hour cycle. This is important to take into consideration when deciding when to do your CWAC count. Not only does it provide better population estimates for a site, but could also potentially increase the conservation status of such a site. (See article in Bird Numbers 13(1): 46).

Remember, however, that count times at current CWAC sites should not be changed! Rather continue counting at your regular times, to ensure that the data is comparable.

If you feel that you would like to contribute by doing additional counts at different times of the day, e.g. an evening count, simply complete a CWAC form, for that particular time of day.

The last question remains. “Where” do we count? Essentially the most obvious answer would be to count wherever the birds are. This is however not always the case. Since its inception, the CWAC database has grown tremendously and now more than 400 sites throughout South Africa are counted on a regular basis. Most of these sites, however, are traditional wetlands such as dams, pans, vleis, and estuaries. Note, that these are not the only habitats in which waterbirds are found.

We have come to realise that there is a huge gap in our knowledge concerning waterbird populations found along the South African coast, as well as, along many of South Africa’s river systems. The CWAC project must incorporate these habitats in order to be as comprehensive as possible. We would like to encourage each CWACer, as well as bird clubs and other interested people that want to become involved, to consider counting such sites. Efforts should be focussed on areas with greater abundance of birds due to breeding, feeding or communal roosting, but this need not be the case. The CWAC project also aims to look at small sections of habitat that might prove important for other reasons besides supporting high numbers of birds e.g. a piece of shoreline supporting high densities of a certain species like African Black Oystercatcher.

By incorporating data from all waterbird habitats into the CWAC database, we can make meaningful and informed decisions about our waterbird populations, as well as their habitats. If you need more information with regards to the counting of shore or river sections, please contact your regional organiser or Marius Wheeler.

Waterbird Data

It has recently come to our attention, that there may be a misunderstanding concerning CWAC. Many people believe that CWAC only requires two counts per year, these being the mid-summer and mid-winter counts. Strictly speaking, this is true, but the more information we can obtain, the better. There are currently several sites that are counted on a regular or *ad hoc* basis, but the data

is not submitted because people believe that CWAC does not require it. The other fact is that there are large quantities of historical waterbird count data, which have been recorded by dedicated people in the past, but which is now just lying in some old drawer, forgotten. This kind of information can make a huge contribution to the project.

As previously stated, the CWAC database can deal with all types of data, whether it is old or new, regular or irregular counts. We would like to get as much information as possible in order to expand the most comprehensive waterbird database in South Africa even further! We encourage anybody that has additional count or wetland information, to please submit it to CWAC. Alternatively, please let us know where data is available or stored, so that we can make a comprehensive inventory for future reference.

CWAC personality profile

In this issue, we feature Doug Harebottle with whom many of you have crossed paths in the last five years. As most of you know, he also managed the Birds In Reserves Project (BIRP) as well as the Nest Record Card Scheme (NERCS). A big thanks to Doug for the past five years, and we wish him all the best in his new role.

Here are a few questions we asked him:

ADU: *When and where did you start CWACing?*

Doug: “It all started in 1994 when I joined the Witwatersrand Bird Club committee and took on the role of the Conservation Chairman. Part of the duties included coordinating CWAC counts in Gauteng. My first official count took place at Rolfe's Pan in July 1994. I then attended the Wakkerstroom CWAC workshop in February 1995 as the Gauteng representative where I met Les Underhill, James Harrison and the rest of the CWAC team for the first time. I then moved to Lydenburg in Mpumalanga, in August 1995, where one of the first things I did was find a suitable CWAC site and I can now report that up to four sites are counted on a regular basis in this region.”

ADU: *What did you enjoy most about your work as CWAC Coordinator during the past five years?*

Doug: “One of the most fascinating things has been seeing how the project operates ‘behind the scenes’ and I can now truly appreciate the limitations (and team work) that the ADU works within to keep a project like CWAC going. The most interesting aspect has been the commitment and support shown from so many different people, which has highlighted a strong interest in waterbird conservation in South Africa. Combined with this, was the personal contact I established with many compilers and observers. This ‘people-network’ has undoubtedly contributed to the growing success of the project over the past five years and I hope that this will continue as Marius steers CWAC into the next five years. It has also been a wonderful experience to learn more about South Africa’s waterbirds and their wetland habitats, and I now have a far greater understanding and appreciation of their future conservation needs.

Finally, it was a real privilege to know that every time I went into the field that I was getting paid to count birds!”

ADU: *Any highlights in the past five years?*

Doug: “My first count as the official CWAC coordinator was doing the 13km beach section as part of the Langebaan Lagoon count and I recall thinking that if this is what one has to do for CWAC then it must show real commitment! A major highlight was the annual ADU roadshow which included visits to numerous CWAC sites like Barberspan, Roodeplaat Dam (which was my first boat count), Kamfers Dam (with its 10 000+ flamingos), and Krugersdrift Dam, sites that I had always dreamed of visiting. In terms of birds, the Langebaan Lagoon counts have always delivered, and my first experience in counting 5000+ Curlew Sandpipers in the salt marshes will always remain with me. A last highlight has been the interest and dedication shown by some compilers in ‘their’ sites and counts. Often I would get phone calls or emails asking me questions like “where have all the coot gone?”, or “can you explain why numbers of species X have declined so much?” and “can you please send me a summary of counts for my site as I would like to show this to our local authority!””

ADU: *Where do you go from here?*

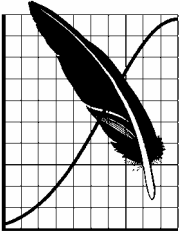
Doug: “As I am sure most CWAC counters can testify to, once the CWAC bug has bitten it is hard to get rid of. I thoroughly enjoy counting waterbirds and will definitely carry on counting. I have a few local sites in Cape Town which are of particular interest to me as they are mostly urban wetlands and I am keen to highlight their roles as important refuges for waterbirds. As for the future and my new post as AFRING Waterbird Ringing coordinator, I am glad that I will still be involved with waterbirds, and hope that I can make even a greater contribution to their conservation in Africa.”

Winter 2004 count

A reminder that the winter 2004 CWAC count is coming up soon. The count can take place on any day during July, with the preferred dates being the weekend of the 17 and 18th. If any information is required, please visit our website, or alternatively make contact with your regional organiser or Marius Wheeler. We wish all a very good and joyful count, and please take care!

*Marius Wheeler & Doug Harebottle
CWAC Coordinator & AFRING Coordinator*





SUMMER 2004 CWAC COUNT



Entries in *italics* indicate either a new compiler or a new site.
 * denotes the count results that have not yet been received.
 Sites are listed in descending order of abundance per province.
 Sites not listed were either not counted or discontinued

Western Cape	Site Code	Compiler	Count
Langebaan Lagoon	33081804	Doug Harebottle	26873
Lower Berg River - Combined			14987
Berg 1: Mouth & Estuary	32471809	<i>Andrew Hester</i>	3579
Berg 2: Cerebos Saltpans	32481810	Keith Harrison	3113
Berg 3: Hotel Mudflats & Estuary	32471811	Keith Harrison	805
Berg 4: Hotel Saltpans	32481811	Mel Tripp	1680
Berg 5: De Plaat	32481812	Vince Ward	4097
Berg 6: Kliphoek Saltpans	32501812	Rob Satchel	609
Berg 7: Kliphoek River & Floodplain	32491813	Rob Satchel	98
Berg 8: Kruispad Floodplain	32521815	Sylvia Ledgard	158
Berg 9: Langrietvlei Floodplain	32521817	Rene Navarro	107
Berg 10: Kersefontein Floodplain	32531819	<i>Rene Navarro</i>	48
Berg 11: Doornfontein Floodplain	32521819	Elsje van der Linde	226
Berg 12: Melkplaas Floodplain	32511814	Elsje van der Linde	445
Berg 13: Springersbaai Floodplain	32481813	Elsje van der Linde	22
Wilderness Lakes - Touw System	33592240	Ian Russell	11341
Strandfontein Sewage Works	34051831	Dick Barnes	10746
Wilderness Lakes - Swartvlei System	34002245	Ian Russell	9613
Voelvlei Dam	33221903	John Carter	7657
Rietvlei Wetland Reserve - Combined			5148
Rietvlei Wetland Reserve - South Vlei	33521828	Koos Retief	2162
Rietvlei Wetland Reserve - Central Pans	33511829	Koos Retief	887
Rietvlei Wetland Reserve - North Vlei	33511828	Koos Retief	861
Rietvlei Wetland Reserve - Dolphin Beach	33501828	Koos Retief	528
Diep River Estuary - R27 bridge to Woodbridge	33531830	Koos Retief	499
Diep River Estuary - Woodbridge to Mouth	33531829	Koos Retief	123
Rietvlei Wetland Reserve - Diep River	33501830	Koos Retief	57
Rietvlei Wetland Reserve - Canal	33501831	Koos Retief	31
Knysna Lagoon	34032302	Joy van Korff	5116
Verlorenvlei	32201825	Kevin Shaw	4080
Paarl Bird Sanctuary	33411858	Yvonne Weiss	3633
Zandvlei - Combined			3262
Zandvlei - Lower Estuary	34071828	Brian Herman	1207
Zandvlei - Marina da Gama	34061829	Angus Hemp	1159
Zandvlei - Upper Estuary	34061828	Brian Herman	856
Zandvlei - Westlake Wetlands	34071827	Brian Herman	40
Radyn Dam	33181845	Otto Schimdt	2858
Theewaterskloof Dam	34021913	Gerry Jooste	2409
De Mond Estuary	34432007	Pieter Albertyn	2382
Houdenbek Dam	33001928	Japie Claassen	1894
Rocklands Dam	33081917	Japie Claassen	1530
Herold Farm Dams - Combined			1427
<i>Herold Farm Dam 1</i>	33492225	<i>Pete Chadwick</i>	30
<i>Herold Farm Dam 2</i>	33502225	<i>Pete Chadwick</i>	322
<i>Herold Farm Dam 3</i>	33492226	<i>Pete Chadwick</i>	130
<i>Herold Farm Dam 4</i>	33502227	<i>Pete Chadwick</i>	211

Western Cape (Continued)	Site Code	Compiler	Count
<i>Herold Farm Dam 5</i>	33492227	<i>Pete Chadwick</i>	455
<i>Herold Farm Dam 6</i>	33492229	<i>Pete Chadwick</i>	267
<i>Herold Farm Dam 7</i>	33492230	<i>Pete Chadwick</i>	12
Kleinriviersvlei	34251921	Mike Ford	1271
Olifants River Mouth (South Bank)	31421812	Kevin Shaw	1211
Stompdrift Dam	33312237	Pete Chadwick	1194
Keurbooms River Estuary	34022324	Brian Denman	1112
Driefontein Farm Dam	33211846	Otto Schimdt	781
Slent Farm Dam	33381849	Judy New	754
Suikerbosrand/Rietvlei Dams	32521928	Japie Claassen	749
Eerste River Estuary	34051846	John Carter	655
<i>Joostenbergkloof Dam</i>	<i>33461845</i>	<i>Ingrid Uys</i>	648
<i>Grootfontein Farm Dam 1</i>	<i>33482232</i>	<i>Pete Chadwick</i>	618
Leeu Gamka Dam	32362201	Japie Claassen	614
Wadrif Saltpan	32131821	Kevin Shaw	575
Wildevoevlei	34081821	Eric Barnes	563
Brede River Estuary	34242049	<i>Rhet Hiseman</i>	554
Rocher Pan	32361818	Kevin Shaw	489
Mossel Bay Sewage Works	34072206	Frans de Graaff	458
Knysna Sewage Works	34042302	Joy van Korff	455
Gourits River: Mouth-Low-water Bridge	34212153	<i>Pete Chadwick</i>	446
Edith Stephens Wetland Park - Flood retention Dam	34011831	Doug Harebottle	387
Noord Agter Paarl Irrigation Dam	33401858	Yvonne Weiss	375
Bitou River	34012323	Brian Denman	365
Mossgas Dams	34112201	Frans de Graaff	362
Rondevlei Nature Reserve	34041830	Dalton Gibbs	352
George Sewage Works	33592227	Frans de Graaff	351
Great Brak River Estuary	34042214	Ian Mileham	344
Macassar Waste Water Treatment Works	34041845	John Carter	342
Paardevlei Dam	34051849	John Carter	313
Groenvlei Lake	34012252	Johan Huisamen	278
<i>Vredenheim Farm Dam</i>		<i>Sheila Walker</i>	199
Mud River Mouth	33291818	Mel Tripp	196
Raapenberg Bird Sanctuary	33561828	Doug Harebottle	116
Dick Dent Bird Sanctuary	34061849	Sheila Walker	97
Hartebeeskuil Dam	34062200	Joy van Korff	94
<i>Dwars in die weg</i>		<i>Sheila Walker</i>	91
Vermont Salt Pan	34251910	Mike Ford	79
Goukamma River Mouth	34042257	<i>Shamley Titus</i>	71
Nature's Valley (Groot River)	33592332	Brian Denman	47
Jakkalsvlei	32051819	Kevin Shaw	19
<i>Grootfontein Farm Dam 2</i>	<i>33482231</i>	<i>Pete Chadwick</i>	15
Edith Stephens Wetland Park - Seasonal vlei	34011832	Doug Harebottle	0
Noordhoek Dam	32572158	Japie Claassen	0
Stompdrift Dam - Lower reaches	33312238	Pete Chadwick	0
Springfontein Dam	32192238	Maria Andela	0
Wellington Waste Water Works	33391858	Johan Rousseau	*
Kleinmond River Estuary	34211905	Mariana Delport	*
Kluitjieskraal Wetland	33261910	Mariana Delport	*
Droevlei	33381843	Mariana Delport	*
Botriviervlei	34211906	Mariana Delport	*
Oudtshoorn Sewage Works	33372214	?	*
Zeekoegat Dam	33382209	?	*
Kamanassie Dam	33392225	?	*
Total			132 596

Eastern Cape	Site Code	Compiler	Count
Krom River Mouth	34082450	Chuck Cook	14591
Redhouse Saltpan	33502535	Paul Martin	5444
Zwartkops River Estuary	33522538	Paul Martin	5362
Gamtoos River (False Mouth)	33582505	Chuck Cook	4319
Umtata Dam	31302842	Emile Plumstead	2581
Seekoei River Estuary	34052454	Chuck Cook	2268
Chatty Saltpans	33512535	Paul Martin	1572
Kabeljous River Estuary	34002456	Chuck Cook	1556
Mondplaas Ponds	33572458	Chuck Cook	1553
Great Fish River Estuary	33292707	Tony Tree	1096
Bar None Saltpan	33502533	Paul Martin	948
Kowie River Estuary	33352653	Tony Tree	906
PE Power Station Pans	33522536	Paul Martin	625
Gamtoos River: Mouth - 6km upstream	33582502	Chuck Cook	503
Riet River Bay (Three Sisters-Riet Point)	33332701	Tony Tree	434
Bushmans River: Mouth - Ghio Bridge	33402635	Laurie Wood	335
Cape Recife Reclamation Works	34012541	Paul Martin	222
Malanskraal Dam	32442607	Bo Bonnevie	161
Perseverance Vleis	33502532	Paul Martin	128
Tyolomnqa River Estuary	33112735	Dave Stewart	81
Retreat Farm Dam	31562525	Alan Collett	71
Ghio Pans	33382634	Laurie Wood	32
Ncqweba Dam	32132432	Judy Caryer	*
Total			44 788

Kwazulu-Natal	Site Code	Compiler	Count
Kosi Bay Lake System	26583250	Scotty Kyle	6118
Malandeni Sewage Works	28342948	Ken Gordon	3747
Nsumu Pan	27403219	Craig Mulqueeny	1546
Richards Bay Wetland	28493202	Andrew Sutherland	1529
Lake St Lucia	28043227	Caroline Fox	1334
Northern Treatment Works	29483100	Richard Boon	1165
Thulazihleka Pan	28473203	Andrew Sutherland	1125
Umgeni River Estuary	29493102	Steve Davis	852
Waterford Farm Dams	29512919	John Crowson	638
Reichenau Mission Dam	29482938	Stuart McLean	587
Durban Bayhead	29533101	Roy Cowgill	562
Mavuya Pan	28303212	Caroline Fox	558
Watermead Dam	29502935	Stuart McLean	546
Neshe Pan	27393224	Craig Mulqueeny	475
Mfolozi Estuary	28243225	Caroline Fox	455
Mpenjati Estuary	30563018	Richard Dobson	440
Mbozambo Waste Water Lagoon	29173117	<i>Bing Comrie</i>	438
Blood River Vlei (Central)	27503035	AP Keeve	388
Muzi Pan	27243237	<i>Caroline Fox</i>	381
Banzi Pan (Ndumo)	26523217	Catherine Hanekom	345
Harding Dam	30342952	<i>Keith Roach</i>	334
Klipfontein Bird Sanctuary	27483048	Duncan Mckenzie	298
Albert Falls Dam	29263024	Shirley Bennett	284
Two Pans	28263217	Caroline Fox	234
Sodwana Bay to Cape Vidal	27523236	Caroline Fox	210
Lenjane Wetland	27533101	Darryl Baxter	209
Midmar Dam (Reserve only)	29313011	Shirley Bennett	198
Dieu Donne Farm Dam	29292941	John Crowson	161
Lake Eteza	28213209	Caroline Fox	157

Kwazulu-Natal (Continued)	Site Code	Compiler	Count
Tshanetshe Pan	27403226	Caroline Fox	114
Mbizana Estuary	30543020	Richard Dobson	102
St Lucia Sewage Works	28233225	Caroline Fox	82
Umhlangankulu Estuary	30563017	Richard Dobson	82
Sandlundlu Estuary	31023013	Richard Dobson	74
Mtamvuna Estuary	31043011	Richard Dobson	73
Ku Mzingwane Pan	27033247	Caroline Fox	68
Pan A - Ozabeni	27413236	Caroline Fox	52
Lake Bhangazi North	27393238	Caroline Fox	38
Ku Shengeza Pan	27023247	Caroline Fox	35
Mfazana Pan	28153228	Caroline Fox	34
Kaba Estuary	30563019	Richard Dobson	29
Kandandlovu Estuary	30593016	Richard Dobson	26
Lake Mfutululu	28253215	Caroline Fox	20
Ku-boboyi Estuary	31023014	Richard Dobson	16
Mvutshini Estuary	30533020	Richard Dobson	16
Sodwana Sewage Works	27333239	Caroline Fox	14
Tongazi Estuary	31003015	Richard Dobson	11
Zolwane Estuary	31043012	Richard Dobson	8
Kudu Pan	28273246	Caroline Fox	5
Mfula Pan	27373233	Caroline Fox	0
Nhlonhlela Pan	27363212	Craig Mulqueeny	0
Mhlazi Pan	27363238	Caroline Fox	0
Ndlebeni Pan	27423237	Caroline Fox	0
Yengweni Pan	27393226	Craig Mulqueeny	0
Mtunzini Prawn Hatchery	28573146	Callum Beattie	*
Mlalazi River Estuary	28573147	Callum Beattie	*
Umvoti River Estuary	29233121	Shirley Jex	*
Total			26 213

Limpopo	Site Code	Compiler	Count
Den Staat Irrigation Dams	29162213	Joe Grosel	3763
Naboomspruit Sewage Works	28432431	Ellie van Rhyn	3326
Sterkloop Wetlands	24362924	Joe Grosel	983
Turfloop Dam	23532946	Joe Grosel	754
Rondepan Farm Dams	23472924	Joe Grosel	662
PMC wetlands	24013110	John Swards	531
Namakgale Sewage Works	23573102	John Swards	377
Deloskop Farm Dam	23312919	Joe Grosel	355
Nylsvley Nature Reserve	24392841	Koos van Dyk	286
Kalkfontein Irrigation Dams	23372923	Joe Grosel	244
Rooibosrant Dam (KNP)	23153110	John Swards	170
Polokwane NR - Retention Dams	23522930	Joe Grosel	82
Doornbult Farm Dam	23472927	Joe Grosel	61
Pietersburg Bird Sanctuary	23512927	Conrad van Tonder	*
Total			11 594

Mpumalanga	Site Code	Compiler	Count
Daybreak Farm Dam	26092832	Andy McLetchie	2267
Leeuwpans	26352857	Piet van der Westhuizen	1862
Loskop Dam	25262919	Anton Linström	1568
New Denmark Dam	26442922	Colin Williams	1499
Otter Pan	25552956	Hannes Hoffman	1329
Arnot Pan	25462946	Jan de Vries	1251
Kanhym Pan 1	25502931	Ken Hattingh	1097

Mpumalanga (Continued)	Site Code	Compiler	Count
Bosmanskrans Spruit	25592920	<i>Val Odendaal</i>	915
Witbank Dam	25532918	<i>Val Odendaal</i>	879
Blinkpan (Lothair)	26203020	Frank Rautenbach	795
Lake Banagher (East)	26203022	Frank Rautenbach	724
Blinkpan (Arnot)	25542953	Hannes Hoffman	620
Lake Chrissie 92IT	26193013	Frank Rautenbach	604
Kanhym Pan 3	25522932	Ken Hattingh	588
Bosmanslaagte Pan	26072942	Ken Hattingh	522
Hendrina Municipal Dam	26092944	Ken Hattingh	507
Blaauwwater Pan	26173016	Frank Rautenbach	355
Kanhym Pan 2	25512941	Ken Hattingh	352
Lakenvlei (East)	25353006	David Gaynor	349
Blinkpan Oranje	26032931	<i>Val Odendaal</i>	325
Masibekela Wetlands	25533150	<i>Anton Linström</i>	314
Goedehoop Pans 1&2	26203018	Frank Rautenbach	278
Bosmansfontein Pan	26062941	Ken Hattingh	270
Lemoenfontein Pan	25472938	Steve Roos	267
Goedenhoop Pan	25552928	Ken Hattingh	257
Arnot Vlei	25462947	Jan de Vries	249
Kwena Dam	25213022	<i>Anton Linström</i>	242
Nooitgedacht Dam	25593004	<i>Anton Linström</i>	223
Rustig North Pan	25442936	Steve Roos	223
Lemoenfontein Dams - Combined			217
Lemoenfontein Dam 1	25482940	Ken Hattingh	83
Lemoenfontein Dam 2	25472939	Ken Hattingh	117
Lemoenfontein Dam 3	25472941	Ken Hattingh	17
Oranjevallei Pan	26122945	Ken Hattingh	212
Breyten Pan	26183000	Frank Rautenbach	211
Grootpan	25552954	Hannes Hoffman	211
Kanhym Pan 4	25512933	Ken Hattingh	209
Bosmanspoort Dam	26052941	Ken Hattingh	188
Nooitgedacht Pan	25442947	Jan de Vries	185
Oranje Pan	26012932	<i>Val Odendaal</i>	179
TNC Proposed Bird Sanctuary	26082922	Ken Hattingh	170
Mavella Pan	25542924	Hannes Hoffman	162
Lake Banagher (West)	26203021	Frank Rautenbach	105
Coetzerspruit (source of)	26032934	<i>Val Odendaal</i>	101
Rustig Pan	25452936	Steve Roos	99
Lydenburg Fisheries	25073028	<i>Anton Linström</i>	97
Woestaleen Spruit Dam	25562937	Ken Hattingh	78
Klein Riet Pan	25562940	Ken Hattingh	64
Ogies Pans	26052904	Andy McLetchie	58
Swadini Dam	24333048	<i>Anton Linström</i>	47
Coetzerspruit	25552936	Ken Hattingh	28
Total			23 352

North West	Site Code	Compiler	Count
Barberspan	26352535	Henk Bouwman	8152
Vaalkop Dam	25202728	Koos van Dyk	4294
Total			12 446

Free State	Site Code	Compiler	Count
Bloemhof Dam	27412540	Brian Colahan	47008
Vaal Dam - Combined			10034
Vaal Dam South	27042816	Tony Jones	4004
Vaal Dam West	26542808	Tony Jones	3128
Vaal Dam East	26552816	Tony Jones	2902
Vaalbank Farm Dam	29052549	Brian Colahan	9784
Deelpan	29102545	Brian Colahan	7582
Krugersdrift Dam	28522600	Brian Colahan	7301
Gariiep Dam - Combined			6888
Gariiep Dam (East)	30382550	Brian Colahan	4279
Gariiep Dam (West)	30372537	H.L. Bosman	2609
Kalkfontein Dam	29322515	Brian Colahan	6328
Erfenis Dam	28342650	Brian Colahan	5760
Rusfontein Dam	29182637	Brian Colahan	5462
Knellpoort Dam	29462653	Brian Colahan	4578
Allemanskraal Dam	28182712	Brian Colahan	3775
Koppies Dam	27152741	Vella van Niekerk Brink	2677
Samenwerking Farm Dam	30042639	Brian Colahan	2665
Leeukop Farm Dam	29212623	I. Van Rooyen	1957
Donkerpoort Farm Dam 1	29172629	Stephanie Gerber	1570
Welbedacht Dam	29522653	Brian Colahan	1141
Bloemspruit Sewage Maturation Ponds	29072616	Herman Kleynhans	1078
Knellpoort Dam - Upper reaches	29452650	Brian Colahan	964
Moutloasi Setlogelo Dam	29182651	Jeremy Jones	439
Seekoeivlei	27352935	G. Wandrag	202
Skop Pan	28462606	Stephan vd Walt	50
Sunnyside Pan	28392608	Hannes du Toit	34
Hartebeesdraai Farm Dam	28082615	Janine Liefbrig	26
Brandmag Farm Dam	29162630	Stephanie Gerber	12
Danielskuil Pan	29022554	Brian Colahan	0
Rietpan	28402618	Brian Colahan	0
Leeupan	29082541	Brian Colahan	0
Donkerpoort Farm Dam 2	29162629	Stephanie Gerber	0
Vendutiekop Farm Dam	29442538	Christiaan de Wit	*
Benfontein Dam	28502450	Mark Anderson	*
Benfontein Pan	28492449	Mark Anderson	*
Total			127 315

Gauteng	Site Code	Compiler	Count
Rietvlei & Marais Dams	25532817	<i>Craig Whittington-Jones</i>	3341
Marievale Bird Sanctuary - Combined			2922
Marievale Bird Sanctuary - Area A	26212830	Stan Madden	1946
Marievale Bird Sanctuary - Area B	26212831	Stan Madden	976
Rooiwal Sewage Works	25342814	Andre van der Walt	2307
Roodeplaat Dam	25382821	Craig Whittington-Jones	2148
Sandpan	26072819	Craig Whittington-Jones	1838
Korsman Bird Sanctuary	26112818	Andy McLetchie	1601
Abe Bailey NR - Combined			1560
Moorivier Loop 1 (Abe Bailey NR)	26192720	<i>Lynn Randell</i>	753
Moorivier Loop 2 (Abe Bailey NR)	26212716	Craig Whittington-Jones	421
Moorivier Loop 3 (Abe Bailey NR)	26212715	Craig Whittington-Jones	386
Bronkhorstspruit Dam	25542842	Pauline Leinberger	1304
Elandsvlei 414	25592827	Koos van Dyk	1188
Leeupan	26142819	Craig Whittington-Jones	1103
Steward's Pan	26122817	Craig Whittington-Jones	1029

Gauteng (Continued)	Site Code	Compiler	Count
Diepsloot Nature Reserve	25572800	Henk Alting	816
Bon Accord Dam	25372811	Craig Whittington-Jones	661
Groenfontein Pan	25562844	Andre Marx	635
Apex Pan	26132820	Craig Whittington-Jones	493
Rolfe's Pan	26102813	Koos van Dyk	475
Anglo Reserve	26182830	Stan Madden	436
Grootvaly on Blesbok	26162830	Stan Madden	411
Rietspruit (Rooikraal)	26202817	Andy McLetchie	372
Stan Madden Bird Sanctuary	26242828	Stan Madden	279
Blaauwpan	26072815	Craig Whittington-Jones	274
Cowles Dam	26132828	Stan Madden	271
Grootvaly Wetland Reserve	26142829	Stan Madden	259
Bonaero Park Pan	26072816	Andy McLetchie	59
De Pan	26132726	Craig Whittington-Jones	0
Parkhaven Pan - North	26082816	Henk Alting	0
Lakefield Pan	26112817	Henk Alting	0
Parkhaven Pan - South	26092816	Henk Alting	0
Rust de Winter Dam	25132830	Andre van der Walt	*
Bullfrog Pan	26082819	Anne Mearns	*
Varkfontein Pans	26032822	Anne Mearns	*
Total			25 782

Combined Total			404 086
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Northern Cape data not available at time of going to press.