AVIFAUNAL MOTIVATION LETTER FOR CONDUCTING A DRY AND WET SEASON ASSESSMENT OF THE 5 ILANGA CSP FACILITIES, NEAR UPINGTON, NORTHERN CAPE





Prepared for:

On behalf of:

(PTY) Ltd

EMVELO ECO PROJECTS



Prepared by:



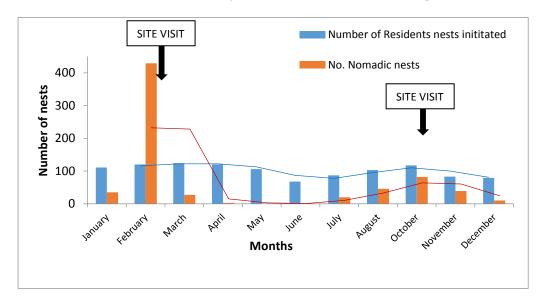
Timing of site visits to survey birds at Ilanga (Karoshoek) solar development

Reply to: It must be noted that this Department [DEA] in its acceptance of the SR letter, requested that the avifaunal assessment cover the summer and winter seasons. Upon review of this report, the specialist conducted a site visit from the 31 October – 7 November 2015 and 29 February – 09 March 2016 which is deemed as spring and autumn. As such the study must be conducted within the seasons as requested by the DEA. Furthermore, no reason or motivation was provided for the deviation from the acceptance of the SR.

We, Birds & Bats Unlimited Environmental Consultants, undertook the avian surveys for the Ilanga solar site. We undertook two visits and timed them to maximise the chances of seeing as many resident birds and nomadic birds as possible present on site. Such visits were timed therefore to:

- capture the first breeding peak of resident arid-adapted birds in October-November
- capture the influx of nomadic birds that arrive with the rains and breed 2-4 weeks later.

The graph below indicates the timing of breeding in s-w Kalahari birds drawn from Maclean (1969). Our visits (shown) indicate how they coincide with the main breeding events in arid areas.



So our site visit in October-November 2015 coincided with late spring when many <u>resident</u> arid-species first start to breed (blue above). Furthermore, according to Lepage and Lloyd (2004) who analysed the breeding seasons of all South Africa's birds (with an emphasis on arid-breeding birds), the top breeding month is October (even for areas which have late-summer rains). Ilanga fits into the latter category. Most breeding is finished by the winter (June-July).

For really arid areas like Ilanga which have late summer (March) rains, <u>nomadic</u> birds respond to (fly into) areas with rains and breed within 14 days (insectivores) or 32 d (granivores) (Maclean 1969). So both our visits were timed perfectly to record <u>resident</u> (October) and <u>nomadic</u> (March) birds present and breeding in the Ilanga



area. A summer and winter visit would miss both peaks.

Lepage D, Lloyd P. (2004). Avian clutch size in relation to rainfall seasonality and stochasticity along an aridity gradient across South Africa. *Ostrich 75(4): 259–268*.

Maclean, G. (1969). The Breeding seasons of birds In the Southwestern Kalahari. Ostrich (supplement) 40:179-192.

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- Simmons R.E., Barnard P. and Jamieson I.G. 1999. What precipitates influxes of wetland birds to ephemeral pans in arid landscapes? Observations from Namibia. Ostrich 70, 145–148. African National Biodiversity Institute, Pretoria, RSA.
- **Taylor M, Peacock F, Wanless R. (eds.)** 2015. The Eskom red data book of birds of South Africa, Lesotho and Swaziland. Birdlife South Africa.
- **Todd, S.** 2012 Proposed Karoshoek Solar Valley Development: Fauna and Flora Specialist Impact Assessment Report. Unpubl report to Savannah Environmental, Johannesburg
- Walston, LJ., Rollins KE, Smith KP, LaGory KE, Sinclair K, Turchi C, Wendelin T Souder H. 2014. A Review of Avian Monitoring and Mitigation Information at Existing Utility-Scale Solar Facilities Unpublished report by Argonne National Laboratory, USA for U.S. Department of Energy, SunShot Initiative and Office of Energy Efficiency & Renewable Energy.

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18 April 2016

