

# Ornithological Observations



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## NOTES ON THE BREEDING AND BREEDING SUCCESS OF CROWNED LAPWINGS *VANELLUS CORONATUS* IN THE SOUTHERN SUBURBS OF BLOEMFONTEIN

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The Crowned Lapwing *Vanellus coronatus* is a common resident of mostly open grassland, sparse woodland, open patches in Karoo scrub, and also well adapted to man-modified habitat such as parks, sport fields, golf courses and airports (Turpie and Ryan 2005). They are subject to some local movements and movements up to 13 km have been reported Turpie and Ryan 200%). Crowned Lapwings will also move away from areas where the grass becomes too tall or move into recently burnt areas (Turpie and Ryan 2005). This species is mostly a solitary nester. They are territorial during the breeding season and may sometimes breed in loose aggregations. General information is available on their breeding season (peak egg laying mostly between August to December), incubation and nestling periods, but little information exists on their breeding success (Hanley 1990, Ward 1989). Crowned Lapwings are abundant in the Bloemfontein area, nevertheless, little research work has been done on this species recently (see Roos et al. 1985, Kopij 2001). Only the

status, breeding communities and habitat preferences of this species were investigated (Kopij 2001, Kopij and Kok 1994).

This note reports on data obtained between December 2004 and January 2007. The nests and the breeding success of this species were monitored in two small parks dominated by *Themedia* spp. grass in the suburban area of Fleurdal, Bloemfontein (S29° 09' E26° 11'). Nests were mostly located when the incubating female was seen on or near the nest and thereafter the nests were monitored for the purpose of this study.



**Figure 1** – Crowned Lapwing nest with three eggs



A total of eight nests were monitored. These nests mostly contained clutches of 2-3 eggs of which only the chicks of three nests fledged successfully (Table 1). A hatching success rate of 63.6% and reproductive (breeding) success rate of 27.3% were recorded.

Two nests under observation during 2005 were presumably from the same pair. The first nest with 3 eggs was detected on 7 August 2005 and chicks were observed on 28 August 2005 for the first time. The chicks were observed moving with the adults at regular intervals. Only one managed to survive the nestling period of *ca.* 28 days. The single surviving juvenile was seen for the last time on 21 October 2005.

A second clutch by presumably the same female was located in the same park on 15 October 2005. This nest also consisted of a clutch of three eggs which hatched after an incubation period of 25 days. On 12 November only two of the chicks were seen lying flat in the nest. The third chick was seen with its parents and the other two chicks on 19 November 2005. Only two fledged successfully and were last seen on the 34th day after hatching with the adult birds.

On 9 November 2006 another breeding attempt was observed in the same park. This nest was located closer to the busy Barry Richter

Avenue in the park. The nest was not monitored any further due to its close location to the busy street.

On 21 December 2006 a pair with 2 recently fledged chicks were observed in the public space at a townhouse complex. They were seen moving around in the vicinity until 12 January 2007. The birds were sometimes seen walking or foraging in the busy street next to the park or walking on the verge of the road where they were seen frequently in the bordering large garden.

During late summer and into the winter months this species congregates into large groups and during this study large groups were present on the roadsides and traffic islands on Curie Avenue. Such groups consist of adult and immature Lapwings. Groups up to 20 or more birds were observed. During January 2007 a large group of more than 40 Crowned Lapwings, including juvenile birds, was observed in the shade of roadside trees in the larger park seeking shelter from the extreme high temperatures.

The post nestling period for Crowned Lapwings observed in the Fleurdal area does not differ much from those already obtained in previous studies (Turpie and Ryan 2005). One immature Lapwing was seen with the parents 48 days after hatching. It is however



difficult to determine a specific post nestling period as the juvenile birds mostly stay with the adults for up to a year.

The hatching and breeding success rates obtained from these nest observations were found to be lower than those obtained in KwaZulu-Natal and the Eastern Cape by Ward (1989) and Hanley (1990). The lower success rate can be attributed to the influence of predation by cats and other disturbances in their suburban environment. Chicks were also killed in the streets by fast moving vehicles.

A more detailed study of the breeding ecology of Crowned Lapwing is needed to make more accurate estimates of the reproductive success.

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**Table 1** - Breeding success data of Crowned Lapwing *Vanellus coronatus* nests (n=8) in parks in Fleurdal, Bloemfontein, December 2004–January 2007.

Season	Eggs laid	Eggs hatched	Chicks survived	Notes
04/05	3	3	0	Chicks disappeared
04/05	2	1	0	Unsuccessful
05/06	3	0	0	Unsuccessful
05/06	3	2	2	Fledged successfully
05/06	3	3	3	Fledged successfully
05/06	3	0	0	Unsuccessful
06/07	3	3	0	Outcome uncertain
06/07	2	2	1	Fledged successfully
07/08	2	?	?	Present nest (Oct 2007)
<b>Totals</b>	<b>22</b>	<b>14</b>	<b>6</b>	
<b>% hatching success</b>		<b>63.6%</b>		
<b>% reproductive success</b>		<b>27.3%</b>		