

# Colonial nesting birds at the Hunter Wetlands Centre

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This note reports the results of annual counts of colonial nesting birds in the Hunter Wetlands Centre (HWC) from 2010-11 to 2018-19. The HWC in Shortland, Newcastle, has long hosted breeding colonies of four egret species: Cattle Egret *Bubulcus ibis*, Great Egret *Ardea alba*, Intermediate Egret *Ardea intermedia* and Little Egret *Egretta garzetta* (Baxter 1994). Maddock (2008) reported annual counts from there of the nests of all four species for 17 breeding seasons spanning 1987-88 to 2007-2008. At the peak, in the 1988-89 season, there were 2,101 nests. There were more than 1,000 nests every breeding season between 1987-88 and 1989-90, but from the 1995-96 season onwards the counts more typically were of 300-500 egret nests (Maddock 2008).

The Australian White Ibis *Threskiornis moluccus* first bred at HWC in March 1988, a single pair successfully raising two chicks (Maddock 2008). Regular breeding commenced with a single pair in the 2003-04 season and with a steady increase in the number of breeding pairs subsequently. By the 2007-08 season, 117 pairs of Australian White Ibis were breeding at the Wetlands Centre (Maddock 2008).

Max Maddock discontinued his nest counts after the 2007-08 season. In the 2010-11 season he trained me in his methodology and I have continued to do annual counts since then with the help of many volunteers. The surveys are done in

December each year when breeding is at its peak, especially for the egret species. The Australian White Ibis starts breeding earlier and the December counts, considered alone, probably under-estimate the total number of pairs breeding at HWC. It is outside the scope of this note to explore that point further.

I present the results from the annual nest counts since 2010-11 in **Table 1**. Usually there have been 200-300 egret nests present, dominated by Cattle Egret. There were 469 nests in the 2011-2012 season including 360 Cattle Egret nests. That season was also a good one for Australian White Ibis with 303 nests present – by far the largest known count for them.

The counts for total egret nests are broadly in line with those obtained by Maddock from 1995-96 onwards. Using the data in Maddock (2008, Figures 1-7) I calculated that the median count in his 13 annual counts from that season onwards was 304 egret nests. This is similar to my median count of 285 egret nests in nine annual counts from 2010-11 (see **Table 2** for details). However, the median counts for the individual egret species have changed, with more Cattle Egret nests recorded in the present study but fewer nests for Great Egret and Intermediate Egret. Closer examination of the Maddock data shows that the declines for both those species date from the 2001-02 season (Maddock 2008, Figures 1 and 2).

**Table 1.** Annual December counts of the nests of colonial breeding species at Hunter Wetlands Centre, 2010-11 to 2018-19.

	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19
Australian White Ibis	159	303	26	48	114	125	47	76	58
Great Egret	44	64	0	13	8	25	8	18	31
Intermediate Egret	1	42	8	10	1	10	0	4	5
Little Egret	0	3	1	5	1	8	1	3	4
Cattle Egret	160	360	300	312	184	192	305	260	216
Total egrets	205	469	309	340	194	235	314	285	236
Total nests	364	772	335	388	308	360	361	361	314

**Table 2.** Comparison of median nest counts for the periods 1995-96 to 2007-08 (derived from Maddock 2008) and 2010-11 to 2018-19 (this study).

	1995-96 to 2007-08	2010-11 to 2018-19
Australian White Ibis	N/A	76
<b>Egrets</b>		
Great Egret	26	18
Intermediate Egret	11	5
Little Egret	3	3
Cattle Egret	221	260
<b>Total Egrets</b>	<b>304</b>	<b>285</b>

The numbers of nests for all four of the egret species were much higher in the four seasons 1987-88, 1988-89, 1989-90 and 1991-92 (Maddock 2008). The highest counts for each species in those four seasons were: Cattle Egret 1,393 nests; Great Egret 198 nests; Intermediate Egret 453 nests; Little Egret 57 nests. There has been a considerable decrease in the numbers of nests for all four species since that period.

HWC has been an important site for colonially breeding egrets since 1987-88 and for Australian White Ibis since 2006-07 (with regular breeding by them there since 2003-04). Although there are

considerably fewer nests than were present in the late 1980s and early 1990s (Maddock 2008), it currently is the largest egret colony in the Hunter Region. There are three other locations in the region where egrets are known to breed. There are sizable colonies at Cundletown (c. 300 pairs) and Gloucester (100-200 pairs); both colonies are dominated by Cattle Egret nests (Stuart 2019, Drake-Brockman 2014). There is also a smaller mixed species breeding colony (Cattle Egret, Great Egret, cormorants and Australasian Darter) of 20-50 pairs near Toronto (A. Stuart pers. comm.).

## REFERENCES

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