

THE GROWTH OF A CATTLE EGRET COLONY

By ELLA PRATT

Since the first pair of Cattle Egrets (*Bubulcus ibis*) was found breeding in New South Wales in 1954, the number of known colonies in New South Wales has risen to five and the total of breeding pairs to 2300 (Morris 1979, *Australian Birds* (13) 4: 72-74). In addition, there are large colonies in south-eastern Queensland, especially in the Brisbane area. Now that the Cattle Egret has become a prominent bird in New Zealand (Heather 1978, *Notornis* 25: 218-234), I shall not be surprised if it starts to breed in New Zealand in much the same way as it has in my district. The following notes, therefore, record the events as I have seen them at one Australian colony, perhaps foreshadowing events in New Zealand and at the least giving information on times of plumage change and breeding that may correlate in New Zealand.

The events concern the thriving colony at Murwillumbah in the Tweed River district of north-eastern New South Wales. My first record was of 9 birds at Anthony's Lagoon near Murwillumbah on 9 September 1971. Some were following cattle and the others were standing at the water's edge.

During the following two years (1972-73), small numbers of up to 30 were noted in the same area. On 3 September 1974, I noted that they were changing into breeding plumage but I could find nobody who had seen any breeding, even in the most secluded places. In 1975, there were many more, and on 23 December they were either in full breeding plumage or changing visibly into breeding plumage.

On 14 March 1976, however, I received a report of large numbers of white birds nesting in a patch of *Melaleuca* growing in a small swampy area. When I visited the site on 15 March, I was not surprised to find that they were Cattle Egret, but I was surprised that they were nesting so close to human habitation, including a ready-mixed-cement works and a cement-brick plant. I estimated that at this stage some 250-300 birds were present, 80% of the young were flying, and that there were some 60 nests. The breeding plumage of most of the adults looked very faded. A local resident told me how surprised he was about the colony being so close to human habitation and that he had seen about 50 birds there in the 1974-75 season.

In the 1976-77 season, the first birds I saw changing into breeding plumage were on 24 September, and nesting started about 6 November. I estimated the number of nests as about 700-800. The young started

to leave their nests by 29 January, and by 18 March only about 40 nests were still in use and contained large young.

In the 1977-78 season, the first birds in breeding plumage were noted on 8 October. No birds were at the colony on 11 October, but by 19 October, hundreds of birds were there, and on 22 October about 100 were brooding eggs. I estimated the number of nests to be the same as the previous season, 700-800. The chicks started to leave their nests by 19 January 1978. On 10 February, the first young were away from the colony, and by 5 March the remaining young were out of the nests.

In the 1978-79 season, the first birds changing into breeding plumage were noted on 27 September 1978. The colony was kept under close observation but the birds did not go near it. By mid-October, they all had plumes, but on 28 October no birds were at the colony and we began to think they had deserted, as has happened at other colonies, particularly because of the number of new industrial buildings nearby and a new power line across one of the main approach lanes to the colony. However, on 1 November my brother reported that at least 500 birds were there and that they were building feverishly. By 8 November, some were brooding eggs. On 20 January 1979, about 300 young were out of their nests. During a brief visit to the colony on 2 February, I counted roughly 800 young egrets on the ground. I estimated that there had been 800-900 nests in the 1978-79 season.

By 20 February, it was evident that the nesting was just about over. The number of occupied nests was down to about 300, all containing well-advanced young. Most of the adults still in attendance had very faded plumage and were moulting their back plumes. By 15 March, only the Large and Plumed Egrets had occupied nests. About 35 young Cattle Egrets were still in the colony area in a group on the ground and would have left in a few days.

At the Murwillumbah colony, the nesting trees, the coastal broad-leafed paperbark (*Melaleuca quinquinerva*), are also used by Large Egrets (White Herons *Egretta alba*) and Plumed Egrets (Intermediate Egrets *E. intermedia*). Small numbers of Little Pied Shags (*Phalacrocorax melanoleucos*) and Little Black Shags (*P. sulcirostris*) also nest at the colony, starting at the same time as the Cattle Egrets. In 1975-76, one Large Egret was seen in breeding plumage but I could find none nesting, and there were no Plumed Egrets. On 4 December 1976, 60 Plumed Egrets were incubating and a few others were at the courting stage. Three pairs of Large Egrets were found on nests late in the season. In 1977-78, only 30 pairs of Plumed Egrets nested, most starting in December, and 5 pairs of Large Egrets nested late. In 1978-79, there were 12 pairs of Plumed and 6 pairs of Large Egrets. I have noted that most of the Plumed Egrets arrive early in December and start nesting immediately; in contrast, most Large Egrets nest late, although a few are usually pottering about

the colony in full breeding plumage early in the season. The Large Egrets prefer to nest at the top of the trees, whereas the Plumed Egrets will take any position.

I have no detailed notes on Cattle Egret plumage, but the following may be of interest. Non-breeding adults are all-white, with bill, face and eye lemon yellow and legs grey or greyish green. Breeding adults have the bill, eye, head, neck, breast, back and plumes bright orange and the legs grey. The thighs and eyes turn red for a brief period during courting but quickly fade. I have never seen birds with completely red legs; I have seen only the bare part of the thigh down to the knee joint red, the tarsus seeming to remain grey. However, as the red fades so quickly, I may have missed a short period when the whole leg is red.

A few Cattle Egrets have been seen breeding that are not in full breeding plumage. They have a faint orange or buff wash on the back and breast and no plumes, but they have bright orange bills and eyes. They successfully rear young. The plumage of the chicks is all-white with grey bill and face, pale yellow eyes, and grey or greyish green legs. Before it fledges, the chick has a yellow tip to the bill, and after fledging, the whole bill quickly changes to dull lemon yellow, as does the face.

From my observations with binoculars, most nests have two or three chicks, but I have no information on fledging success.

In this district, Cattle Egrets remain in large numbers all year. I have noted a decline in the numbers, however, by late April/early May and a definite increase by early September. They usually feed among cattle, preferring no particular breed. Birds often run a considerable distance after moving cattle. In places where insects are plentiful, one cow can have up to 12 egrets in attendance. At such times they often start fighting — they flap their wings, jump into the air, and stab at each other with their bills. Sometimes one chases another for a short distance, and then they settle to feed again. They seem to eat all kinds of insects and also frogs and lizards — in fact, anything that walks, flies or crawls. Although the authorities in literature disagree on the subject of Cattle Egrets taking ticks off cattle, the egrets certainly take them in this district and they are much favoured therefore by most cattle owners. They stand near a grazing animal's head, make a quick dart, and pick a tick from the animal's ear. They also spring up and pick ticks from the front-leg areas and the flanks. Once the cattle accept the egrets, the birds can walk along their backs and pick ticks from along their necks and the base of the tail. The ticks taken vary from the small flat brown stage, about half-grown, to the fully engorged stage.

One of my brothers, while mowing one day, found that the Cattle Egrets moved away from the cattle on to the fresh mowing and began stalking prey, standing with their necks stiffly extended, their bodies swaying from side to side, then making a quick stab,

a few gulps, and starting again. On another occasion, an egret was following a grazing cow as usual when a large (about 2½ inches) grasshopper was flushed. As it rose into the air, the egret gave chase, but the grasshopper's zig-zagging soon out-manoeuvred the egret, and it dived to the ground, unluckily near a Starling, which was much too agile to be out-manoeuvred.

At the start of the 1979-80 season, I saw the first Cattle Egrets starting to change into breeding plumage on 16 September, and by mid-October about half the birds seen were well coloured, the rest at all stages, including a few still plain white. On 24 October, earlier than in previous years, about 200 nests were in the early stages of construction. These early nests had eggs by early November, and by the time of writing (mid-November) some 800 nests had been built.

ELLA K. PRATT, *Reserve Creek, Murwillumbah, New South Wales 2484, Australia*



SHORT NOTE

TUIS ALL YEAR ROUND

In my area on the northern side of Whangarei Harbour, the population of Tuis (*Prothemadera novaeseelandiae*) seems to remain most of the year, being less plentiful only around February. This persistence seems to be dictated by the availability of suitable food plants in most seasons. The berries of the haekaro (*Pittosporum umbellatum*) is a favourite food in June, and I have seen 9 Tuis feeding in one tree. The Taiwan cherry (*Prunus campanulata*) flowers in August and is a favourite for nectar. The winter red gum (*Eucalyptus leucoxylan rosea*) is another favourite, and I have seen 15 Tuis in one tree. The flame tree (*Erythrina Xsykesi*) has a varied flowering period from May to September-October and is another attraction. Kowhai flowering sees the birds more dispersed because of the kowhai groves in the bush. The puriri flowers over a longer time and they are many here. Mid-December is the pohutukawa season, which brings the Tuis to the seaside. Flax in season, peach blossom and loquat blossom all add to the menu.

I have no doubt that the flame tree, the Taiwan cherry, the haekaro and the winter gum help increase the number of Tuis able to survive the winter in Northland.

C. W. DEVONSHIRE, *Tamatarau, RD 4, Whangarei.*