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SHORT NOTES

A Study of Cattle Egret Numbers in the Horowhenua

Before our study began in 1983, Cattle Egrets (*Bubulcus ibis*) had visited the Horowhenua district only in very small numbers. E.B. Jones (1964) recorded the first birds – five in 1964 on fields at the southern end of Lake Horowhenua, a lake of about 400 ha lying immediately west of Levin. The fields at the southern end have remained the egrets' favourite site ever since. After 1964, E.B. Jones (1972, 1973, 1974, 1976) recorded one in 1966, up to five in 1973, and one in 1976. For the years leading up to 1980, Heather (1982) summarised records of 2-5 birds. An unexpected 12 birds on 1 December 1980 were presumably on passage and did not stay. Only a couple of birds visited our area in 1981 and 1982 (Powlesland 1982, Heather 1983).

Here we record our observations of Cattle Egrets at Lake Horowhenua from June 1983 to early 1987. Figure 1 shows the monthly maximum counts from at least weekly (and often daily) visits (over 200 in all) to the places regularly frequented by Cattle Egrets in late autumn, winter and spring, and less frequent visits in the summer and early autumn, when the egrets were generally absent. The trends shown support the trends shown nationally over these years.

On 11 June 1983, a flock of ten Cattle Egrets was seen flying over Arawhata Road at the southern end of Lake Horowhenua. These birds settled in trees on the eastern side of the road. By 16 June, this group had increased to 12, and they were feeding among dairy cows. We were able to approach within 50 m of them in a car (compared with 100 m on foot) and watch them taking flies off stems of grass and pulling worms out of the ground. By September some of the birds were showing colour and by 12 November seven were in full breeding plumage. On 17 November, only five birds remained, and by 22 November all had gone, presumably for Australia.

On 27 April 1984, four Cattle Egrets had arrived back in the Arawhata Road area. By 10 May there were 10 birds; 12 days later there were 42. On 19 June 64 were present, including a colour-dyed bird that had earlier been found exhausted at Te Horo, 10 km south of Lake Horowhenua. This bird had been banded as a chick at Lawrence, New South Wales, Australia, on

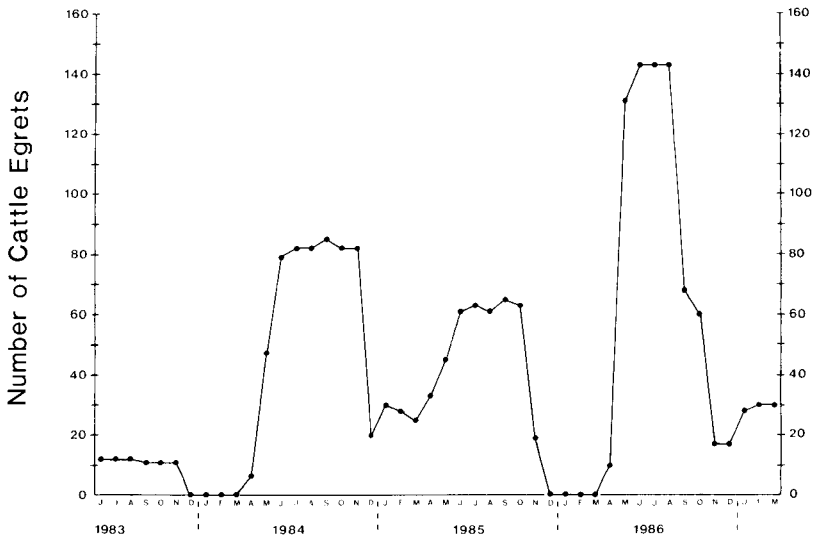


FIGURE 1 — Monthly maximum counts of Cattle Egrets at Lake Horowhenua

17 December 1983 and was taken to Nga Manu Trust Sanctuary to recover, before being released in late May, at Waikanae, with yellow dye on its breast. Numbers continued to increase until, by 20 July 1984, 82 were present. The peak number, recorded on 7 September, was 85. Breeding plumage was starting to show on about 60 birds at this time, and of the 60 birds remaining on 24 November, 45 were in full breeding plumage, the plumes on their backs being visible as they moved in the breeze, 10 were in various stages of colour, and 5 were white. Thirty of these birds spent the summer in New Zealand by moving 15 km north to the floodway of the Manawatu River just south of Foxton.

In 1985, the first Cattle Egrets back in the Horowhenua were two on 22 April. Three days later, five were present, and by 4 May 14 had arrived. The main influx occurred during the next few weeks because on 24 May there were 44 birds. Two of these birds were colour banded. From the colour combinations it was determined that one was 6 months old and had been banded as a nestling at Lawrence, New South Wales, but the other had lost a band and so could not be traced accurately. The highest count for the 1985 season was 65 on 15 and 22 September. The birds left Lake Horowhenua earlier than the previous year, only 19 being present on 18 November. The last sighting was of 10 on 23 November.

The first sighting in 1986, three birds on 4 April, was 18 days earlier than in 1985, and five more had turned up by 6 April. Numbers increased quickly to 49 on 4 May and 65 on 7 May. By this time, the two colour-banded birds seen in 1985 had returned. On 22 May, 131 birds were at the southern end of Lake Horowhenua, but these were in two flocks about

1 km apart: 68 at the Levin sewage ponds and 63 in the Arawhata Road area. These flocks were combined at the sewage ponds on 9 and 17 June, and a record 143 birds was recorded on both occasions.

Behaviour

When feeding near cows, Cattle Egrets happily wandered right underneath them, but we did not see them standing on the cows' backs as they do in Asia and Africa. Worms seemed to be their main food, apparently brought to the surface, or exposed, by the trampling action of the cows. Flies were also taken from seed stems of ryegrass, especially in warm weather. One bird was seen with a mouse in its bill, which it eventually swallowed. When not feeding with cows, the egrets have been watched moving across a paddock leap-frogging one another, the birds at the back of the flock flying over the front birds for food, much as flocks of Little Black Shags (*Phalacrocorax sulcirostris*) sometimes feed.

At sunset, the Cattle Egrets usually flew off to their roost trees in one flock, settling on the tops as high as they could get. On the other hand, at sunrise they would leave the roost trees in ones and twos, almost an hour passing before the last bird left the roost. They sometimes returned to the roost trees in the daytime, their pure white plumage from a distance making the trees look to be in flower!

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Predators together

On 11 April 1987, I was photographing harriers (*Circus approximans*) feeding on a dead rabbit that I had placed in front of my hide, on the Ohau river near Twizel. The day was fine, and I was in the hide from 9.30 a.m. to 1.30 p.m.

A dark brown juvenile harrier soon arrived but had just started to feed when it was attacked and driven off by an adult harrier. The juvenile circled the adult several times, attacked it, and drove it off. This behaviour was repeated many times, the two at first landing in a heap, clinging with