

## SHORT NOTE

### **The first confirmed breeding by the Nankeen Night Heron (*Nycticorax caledonicus*) in New Zealand**

The Nankeen Night Heron (*Nycticorax caledonicus*) is a small (59 cm) heron, considered the Australian version of the Black-crowned Night Heron (*N. nycticorax*) with which it forms a superspecies (Bock 1956, cited by Hancock & Kushlan 1984) of a virtually cosmopolitan distribution. It occurs from Indonesia to New Guinea and the Philippines, the south-western Pacific islands, and through Australia (Hancock & Kushlan 1984). The movements of the Nankeen Night Heron are poorly understood. In areas near regularly used breeding colonies it is probably sedentary (Marchant & Higgins 1990), but birds migrate across Bass Strait, Tasmania, and possibly to New Guinea. There is only a single long-distance banding recovery between Victoria and New Guinea (Marchant & Higgins 1990), but there are several records of the post-breeding wanderings of juveniles. This is probably how the species colonised several Pacific islands (Hancock & Kushlan 1984) and large fluctuations in the suitability of breeding areas in Australia may account for the records from New Zealand (Marchant & Higgins 1990).

An attempted introduction of the Nankeen Night Heron in 1852 was unsuccessful (Heather & Robertson 1996), and most of the adults released from Wellington Zoo in 1982 have also disappeared (Williams 1985), with no breeding records reported from this release. Single birds in immature plumage have occurred in New Zealand on several occasions (Turbott 1990, Heather & Robertson 1996). Occasionally, adults have also been observed (Williams 1985, Marsh 1995), these birds were probably vagrants from Australia (Heather & Robertson 1996). There is one possible breeding record near Blenheim, on the South Island (Bell 1958). However, as nests or nestlings have never been found in New Zealand, the breeding of this species remains unconfirmed.

In February 1994, Marsh (1995) observed two groups of Nankeen Night Herons, some in adult, some in juvenile plumage near Pipiriki on the Whanganui River. These observations have strongly suggested that the species had been breeding there during the 1994/95 summer. Intensive observations by personnel of the Whanganui Field Centre, Department of Conservation, during spring 1995 were successful and one nest with three chicks was found near Jerusalem (39° 34' S; 175° 04' E) on 2 November 1995. At the time of discovery, an adult Nankeen Night Heron in breeding plumage was guarding the nest. On 11 November 1995, a party, consisting of NM, GL, Jim Campbell, and Wayne Hutchinson visited the site to check the development of the chicks, to photograph, and possibly to band them.

In this note we document the first confirmed breeding of this species in New Zealand, plus the discovery of several additional nests.

The nest site was on the true right bank of the Mangoihe Stream, about 600 m from where it joined the Whanganui River near Jerusalem. The right bank of the

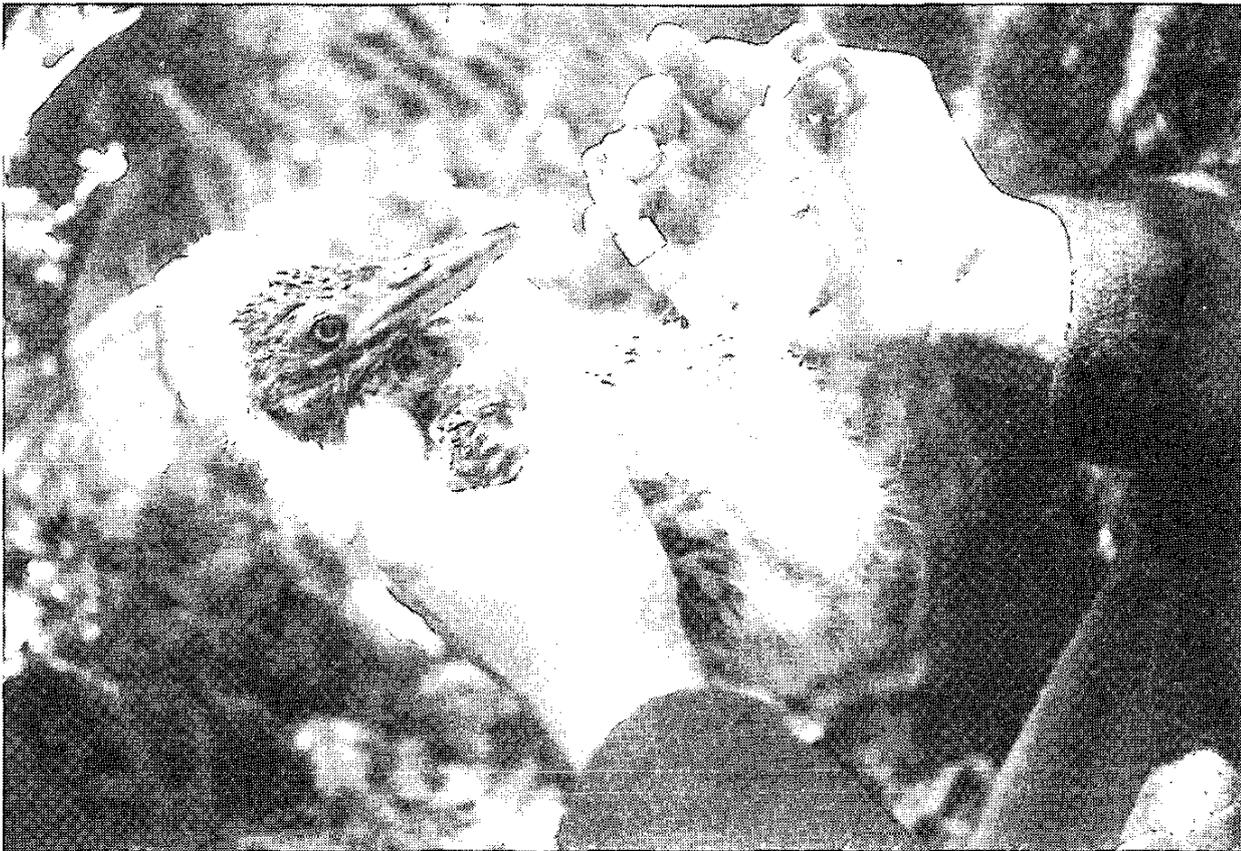


FIGURE 1 – Banded nestling of the Nankeen Night Heron (*Nycticorax caledonicus*) at the Whanganui River catchment.

stream is steep, and emerges to a plateau about 150 m above the water. The whole right bank is covered by thick regenerating native bush, with tree ferns, pukatea (*Laurelia novae-zealandiae*), mahoe (*Melicactus ramiflorus*), rewarewa (*Knightia excelsa*) and supplejack (*Ripogonum splendens*) forming the canopy. The opposite left bank is lower, and only the steep valley sides are covered by the same vegetation; the plateau has been cleared and is currently in pasture. The nest itself, the typical “loose construction of sticks” (Hancock & Kushlan 1984), was near the plateau, on a tree fern (ponga) overhanging a steep slope. It was about 1.8 m above ground from the uphill side, but due to the steepness of the slope, about 6 m vertically above ground with the observer standing under the nest.

Three chicks were in the nest when found on 2 November and two were present on 11 November 1995 when no trace of the smallest chick was found.

The largest chick was about 40% larger in (subjective) size than its sibling, with its primaries accordingly more developed (as it could be observed from about 1.5 m distance). This chick was agile and walked out to the far end of its nesting tree, thus beyond reach. We managed to take the smaller chick out of the nest.

This nestling was moulting. Its head and neck was becoming black-brown streaked buff, with the hair-like filaments at the feather tips. Its back, wing and mantle were beginning to show the mottled rufous brown juvenile plumage (Figure 1). The

wing and tail feathers were less than one-third grown. The underside was still mostly with downy chick feathers, but the thighs and belly have started to show brownish streaks characteristic of juveniles (Fig. 1). As chicks start to clamber out of the nest at 2-3 weeks of age (Marchant & Higgins 1990), we estimated that the older chick was about 3 weeks old. The chick we managed to band seemed to be capable of climbing out of the nest, but was not confident enough to do so. We estimated that it was about 5 days younger. This chick was banded with a metal band (No. 33001) on the right leg and a combination of red over white colour bands on the left leg. After banding, the nestling was returned to the nest where it was again seen and photographed about 30 minutes later, but had not yet been joined by its larger sibling.

During our ascent, we observed two birds in adult plumage, flying across the valley, plus another adult in full breeding plumage near the nest. During a search for more nests, a single adult was seen perched about 300 m from the first nest on a rewarewa tree. Due to the limited visibility from under the canopy, we could not ascertain if this was a bird not seen earlier, or one of the adults that had in the meantime returned from the other side of the valley.

Searching the slope below the occupied nest, NM found three more nests, which were seemingly fully built, and close to each other. It was impossible to examine them closely, but there was no sign of breeding activity in them. The possibility of these being nests of the New Zealand Pigeon (*Hemiphaga novaeseelandiae*) was dismissed, because although the nest construction was similar, these nests were at least twice as large. We consider it likely that these, too, were Nankeen Night Heron nests.

The Nankeen Night Heron is a colonially breeding species, and although we saw only three adult birds, it cannot be excluded that more birds were nesting in the area. The occupied nest could also be recognised by the strong smell from the droppings. This cue can be useful when searching for inhabited nests in thick vegetation.

No subsequent visits were made to the nest that season, so we do not know the fate of the two chicks. There was one possible sighting of a bird in juvenile plumage by locals following the breeding season. Our observations nevertheless constitute the first proven record of the breeding of this species, and the Nankeen Night Heron joins the list of legally protected species in New Zealand.

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