

pinkish grey of the Tree Martin's pale rump, and had a tinge of yellow across the top. During preening, the underwing of the Fairy Martin was seen to be paler grey.

On 26 February, a second Fairy Martin appeared on the clothes-line with the first. It was slightly different in that its head was less bright and looked rather as if it had been powdered with soot, and it had a noticeable yellow tinge on the flank below the line of the folded wing and across the top of the white rump.

On 5 March, Peter Schweigman saw the first Fairy Martin on the woolshed roof with two Tree Martins and some 40 swallows. On 28 March, George Grant from Outram told me by phone that, about an hour earlier, he had seen a martin, possibly Fairy, at the Berwick tip about a mile away across the wetland. As I was talking to him, a flock of swallows arrived beside the house, including a Fairy and a Tree Martin. We did not see Fairy Martins again. On 10 May, I saw closely a Tree Martin flying with a flock of swallows, and on 14 May, when many swallows had been about all afternoon, especially among the flax by the lagoons (perhaps a flock passing through), I saw a Tree Martin several times among swallows on a power line. This is the only time we have seen a martin so late in the season.

ALISON NEVILL, *Lake Holm Farm, Berwick, Outram RD, Otago*



ESTABLISHMENT OF THE STITCHBIRD ON HEN ISLAND

The Stitchbird (*Notiomystis cincta*), after a period of rapid decline, became extinct on the mainland of New Zealand in the 1880s or soon afterwards. For almost a century it has been restricted to Little Barrier Island in the Hauraki Gulf. Species with such restricted ranges can be very vulnerable, as was demonstrated when black rats (*Rattus rattus*) invaded Big South Cape Island in 1964 (D. V. Merton, *Wildlife — A review*, 1969) and eliminated several species and subspecies. To reduce the chances of such disasters in the future, the New Zealand Wildlife Service has followed a policy of establishing additional populations of species that are at present limited to one or a few localities. The dramatic success of this policy in increasing the range of the Saddleback suggested that such a course might also benefit the Stitchbird.

Hen Island (Taranga) in the Hen and Chickens group off Whangarei was chosen as the first transfer site for Stitchbirds. The island is fairly large (484 ha) and similar to Little Barrier in its rugged topography (455 m at its highest point). Two major vegetation types occur: coastal forest (300 ha) on the steeper parts of the island and regenerating kanuka forest (125 ha) on the central plateau in areas the original Maori inhabitants had cleared for cultivation. These vegetation types are very similar in composition and physiognomy to some parts of Little Barrier.

In March 1980, a Wildlife Service party led by C. R. Veitch captured 30 Stitchbirds on Little Barrier and released them at Pukanui Bay near the western end of Hen Island. In April 1981 16 birds were released at Dragon's Mouth Cove immediately west of the previous release point. All birds transferred had a single metal band (C. R. Veitch, pers. comm.).

Several observations of Stitchbirds were made in the course of capturing Saddlebacks on Hen Island for transfer to Kapiti Island in 1981 and 1982. In January 1981 a member of the Saddleback transfer team saw a female Stitchbird feeding a juvenile near Dragon's Mouth Cove, showing that breeding took place in the first year after transfer. In February 1982, a banded female Stitchbird was captured near the centre of the island (east of the pinnacles), showing that some of the introduced birds had dispersed well away from the release areas (R. A. Anderson, pers. comm.).

To find out more about the progress of the introductions, two expeditions (organised by GRA and R. A. Anderson, Wildlife Service, Whangarei) have visited Hen Island. The first party, which visited the island on 7-9 July 1982, consisted of G. R. Angehr, R. A. Anderson, M. Bellingham, A. Davis, G. Taylor, S. Courteney, and L. Brett. Despite poor weather at least 12 Stitchbirds were found. This number is conservative because, whenever a bird was seen or heard in roughly the same area at different times, it was assumed to be a single individual, unless the places of encounter were more than 100 m apart. Of the seven birds seen well enough to determine whether they were banded, six were unbanded, a ratio which suggested that Stitchbirds had bred very well on the island. The only banded bird was a male.

The second party, which visited the island on 1-4 June 1983, consisted of G. R. Angehr, R. A. Anderson, M. Bellingham, A. Davis, T. G. Lovegrove, and C. West. At least 21 birds were found, and they were almost from one end of the island to the other (from behind Lighthouse Bay on the west to past *Astelia* Knoll on the east). Of the seven birds seen well enough to determine whether they were banded, only one was banded, a female seen over 1.2 km from the original release site.

Although only a few birds (12 and 21) were found on the two visits, these totals were accumulated by small parties searching a large and very rugged island for only 3-4 days. In addition, Stitchbirds are very hard to detect in midwinter, when calling is at a minimum (Angehr, pers. obs.). Therefore many more birds were probably present.

To estimate the density of Stitchbirds, we set up a transect route from near the camp site at Dragon's Mouth Cove to Baldy Peak near the centre of the island. This transect traverses c. 1 km of coastal forest and 1 km of kanuka forest. On the mornings of 2 and 3 June we surveyed the transect route 10 times, recording all birds seen or heard within 10 m of the transect. We recorded

Stitchbirds 19 times on these transects; at least eight different birds were present. They were seen about twice as often in coastal forest as in kanuka (13 to 6). This pattern is similar to that on Little Barrier, where Stitchbirds are usually much more common in mature than in regenerating forest (Angehr, pers. obs.).

The transect data give only a very rough estimate of the density of Stitchbirds in different habitats because of small samples. With a transect width of 20 m, 2 ha are surveyed per kilometre walked. The 10 transects yielded estimates of 0.65 Stitchbirds/ha in coastal forest and 0.30 Stitchbirds/ha in kanuka forest. If Stitchbirds are evenly distributed at these densities throughout the island, more than 200 birds may be present. This assumption may be unrealistic. Although Stitchbirds have been found in all parts of the island, they may still be more numerous in the western half of the island, which is closest to their release point. However, even if the density estimates apply only to the western half of the island, a population of well over 100 stitchbirds is indicated. Based on my experience on Little Barrier, the rate at which party members encountered birds (calculated per hour or per kilometre) during non-transect surveys tends to support the higher figure. The fact that 85% of the birds seen well had been bred on the island also suggests that numbers may be high.

In summary, Stitchbirds appear to be breeding very well on Hen Island and are well distributed in both major forest types. The population is probably at least 100 and may well exceed 200 birds. Projections based on the population densities in similar habitats on Little Barrier suggest that Hen Island could eventually support more than 500 birds.

Stitchbirds have also been transferred to Cuvier Island (29 birds in June 1982) and to Kapiti Island (30 birds in August 1983). Although it is too early to know whether these introductions will succeed, the status of the Stitchbird on Hen Island gives strong grounds for optimism.

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GEORGE R. ANGEHR, *Wildlife Service, Department of Internal Affairs, Wellington*



FOURTH RECORD OF A BARN OWL IN NEW ZEALAND, WITH COMMENTS ON LONG-DISTANCE AIRCRAFT AS A POSSIBLE MEANS OF DISPERSAL

On 27 March 1983 at 3.30 p.m., a schoolgirl, Sharon Richardson, found an owl in the grounds of the Flat Bush School, near Papatoetoe, Auckland. The bird was weak and died within about 18 hours. It was brought to the Auckland Museum and identified as a Barn Owl