

THE FAIRY MARTIN (*Petrochelidon ariel*) IN NEW ZEALAND

In December 1978, D. Sim found two unusual nests, one in each of the two compartments of a pumping station at Te Hopai, southern Wairarapa. As the construction of the station was begun in 1977 and finished in mid-November 1978, the nests had presumably been built during a slack period in construction work. No birds were present but the nests had been used by House Sparrows (*Passer domesticus*) and so were badly damaged. The station was commissioned in March 1979 and since then, the noise of the pumps and the turbulence of the water have made the station unsuitable as a nesting site.

At first, D. Sim assumed the nests to be unusual nests of Welcome Swallow (*Hirundo tahitica neoxena*), but he took some slides, which he showed to B. D. Heather in mid-1980. BDH visited the site and measured the less damaged of the nests in August 1980. It was made of mud pellets with a wall thickness of c. 1 cm. The entrance tunnel was c. 3 cm deep, and the distance from the entrance to the back of the nest chamber was 16 cm. The external dimensions of the nest chamber were 7 cm deep by 14 cm from side to side and 10 cm from front to back. The general shape of both nests had been that of a bottle on its side glued to the roof from mouth to base and with the base glued to the wall, quite unlike the open cup of a swallow. The photographs were submitted to several people familiar with the nests of Australian martins and swallows, and they agreed that the nests were almost certainly those of Fairy Martin. However, as the Fairy Martin had not been recorded in New Zealand and none has yet been seen in the Wairarapa, the record was held in suspense.

On 18 November 1982, at 1900 h summertime, J. M. Hawkins, B. D. Bell, and I. Flux saw a martin over the fields of the Puponga Farm Park at the base of Farewell Spit. BDB had seen many martins in Australia some years previously. Although expecting the bird to be a Tree Martin (*P. nigricans*), which often occurs in New Zealand as a vagrant, the party took a description.

The martin was flying near some Welcome Swallows. It tended to glide more, had a very noticeable white rump, was slightly smaller, and had a much more shallow fork in the tail. The white underside was a positive white rather than the greyish white of the swallows, and the black upper surface lacked the bluish sheen of the swallows. The head and nape were orange. The colour extended down the side of the head but not underneath. When this description was compared with that in an Australian field guide, the bird was clearly a Fairy Martin, and this identification has been accepted by the OSNZ Rare Birds Committee. The bird could not be found on the following two days. The wind at the time, as it had been beforehand, was strong westerly.

In late February 1983, at Totaranui, Abel Tasman National Park, Linley Robertson saw three small young 'swallows' sitting

quietly on a fence near the shore. When two older birds appeared, the three became very excited and fidgety, and so she thought that the two may have been the parents. She noted a broad white band across the base of the tail, which was very short compared with a swallow's. Doubting that they were swallows, she asked an Australian visitor, who without hesitation said that they were a family group of Fairy Martins. As the young were flying, they could have been some hundreds of metres away from a nest site; and several likely sites are in the rocky banks at the mouth of the nearby estuary. These birds were seen only once.

Although much of the above observations is uncertain, the positive sighting of one bird makes the others more credible, especially now that two more have been positively identified in Otago in February-March 1983 (Neville, this issue). The possibility of both Fairy and Tree Martins having bred in New Zealand cannot be completely discounted.

According to Australian authorities, the Fairy Martin is widely distributed in Australia except in Tasmania (and Papua New Guinea), where it is a vagrant. In south-eastern Australia, it is present only during the summer months. Around Canberra, for example (Frith 1969, *Birds in the Australian high country*), normally it first appears in September and most leave by February with some remaining to April. According to Pizzey (1980, *A field guide to the birds of Australia*), the nest is "bottle-shaped; of mud-pellets; swollen nest-chamber c. 150 mm in diameter; neck or spout from 50 to 300 mm long. . . . It is the only Australian bird that builds a bottle-shaped mud nest." It nests in colonies and constructs its nest "against the wall or ceiling of a cave, building or culvert, the side of a hollow tree, a cliff-face or creek bank" (Frith 1969). The nests are often used by House Sparrows.

B. D. BELL, *Wildlife Service, Department of Internal Affairs, Private Bag, Wellington*



#### FAIRY AND TREE MARTINS IN OTAGO

Lake Holm Farm lies at the southern end of the Taieri Plain and slopes from exotic forest down to wetland near Lakes Waihola and Waipori. Near the buildings are a line of old macrocarpa trees and a small orchard and woodlot area. The woolshed roof has been a favourite sunning place for Welcome Swallows (*Hirundo tahitica neoxena*), which have also congregated on the various power lines in increasing numbers over the last 10 years. A favourite spot for families of young swallows is our rotary clothesline, which is in a fairly sheltered position close to the old house.

On 3 December 1981 we first glimpsed a white-rump flash in a group of swallows. For two days we watched this bird in flight

and at rest, and when Dr R. F. Smith saw it, he confirmed that it was a Tree Martin (*Hylochelidon nigricans*), as we had suspected. We did not see it again until 12 January 1982, after which it stayed about until early March. It was usually the last to leave the clothesline if anyone went too close. On 21 February, two Tree Martins were seen together on a power line, and until 5 March both were often seen together.

We next saw martins on 19 and 20 December 1982, when two were about sometimes on their own and sometimes with swallows. There were no more sightings until 20 January 1983, when three Tree Martins were on the woolshed roof. Although obviously Tree Martins, only one was in the usual sleek glossy plumage. The plumage of the other two was scruffy and fluffy with grey down-like feathers showing through the black. They were greyer on the breast than the third, lacked its iridescence on the back, and had pinkish cream rather than dull white rumps, and one had a whitish rather than russet forehead. These two tended to keep together, apart from the third. We could never decide whether they were young birds or in moult, perhaps the latter because we did not see them being fed. These three remained individually identifiable whenever seen at close range until at least mid-February, when they were much less scruffy, although one still had a pale forehead.

On 17 February, we suspected that four martins were present but did not see the fourth at rest. On the 20th, my husband, Stuart, saw a martin on the clothesline, face on, which had a more vivid white front than usual and seemed thinner. Next morning, of two martins together on a power line, one was conspicuously smaller with more vivid white parts. Through binoculars, its gingery orange head was in distinct contrast to the Tree Martin's black head. A glance at the illustrations in Pizzey's *Field guide to the birds of Australia* (1980) left us in no doubt that it was a Fairy Martin (*H. ariel*).

After this, all four martins were seen on the clothesline almost daily for a week and a full description was taken. The Fairy Martin was smaller and more slender than the Tree Martin, and the underparts were a more vivid white than the Tree Martin's grey. The head, instead of looking smooth, glossy and black like the head of the Tree Martins and Welcome Swallows, looked as if it had been crew-cut, the feathers standing up rather than sleek, and in some lights the bright carrot orange on the head seemed to glow. Above the bill was a paler V-mark, and the eye stood out black in a dark streak that separated the orange head from the grey checks. The throat was slightly greyer than the bright white underparts. The orange of the head extended to the nape, where it did not end as a sharp line against the black back. The mantle was broken by white zig-zag lines, perhaps four or five, running down it. When both birds were seen at rest together, the white rump of the Fairy Martin seemed to start further down the back, and it was bright white, unlike the

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.