

In some, this region is rather brownish, but not so dark and uniform and not so heavily striated as in the populations in the extreme western half of England, Wales, and in Scotland and Eire, while the mantle striations tend to be somewhat heavier than in birds from the eastern side of England. On the upper parts, the specimens fit best into series of this species from north-western Europe, a point which thoroughly supports the hypothesis that the stock originated from immigrants to the British Isles trapped in the non-breeding season.

Secondly, the most significant feature is that the underparts of all the males examined are of an intensely bright yellow colour, this character exactly matching the central European form *E. c. sylvestris* and also the eastern race *E. c. erythrogenys*; they are, however, different from the latter in being less heavily marked with chestnut striations over the pectoral region and on the flanks; also the outer edges of the secondaries in the New Zealand birds match those of the central European birds.

It would seem that in the New Zealand population, under altered environmental influences and far removed from gene-interchange, we can see the effect of the elimination of the genes which are responsible for the extreme variability of the characters as seen in the populations in north-western Europe. The effect is that by the in-breeding of a stock now isolated and remote, the disclosure and importance of the central European form, *E. c. sylvestris*, as one of the cardinal racial genotypes, has been made evident. These birds, in fact, exemplify the phenomenon of autophoric reverse mutation, and the gradual elimination of heterozygous elements, which in the populations of north-western Europe, are constantly being re-introduced to maintain variability. Upon further consideration, following the examination of the large general series which has been available in the course of this research, the author is now of the opinion that the New Zealand birds should be regarded as more nearly approaching the central European population, *E. c. sylvestris* Brehm, rather than the nominate form *E. c. citrinella* Linnaeus.

The small series of New Zealand birds available does not allow of any useful analysis of measurements, but in the males the wings measure: 85 mm., 88 mm. (2) and 89 mm., which, it will be noted, is small when compared with topotypical *E. c. sylvestris*; an examination of a longer series of this species from New Zealand is very desirable before a more definite assignment is possible as to racial identity. (C/f Checklist of New Zealand Birds, 1953, p. 66.)

PIED FANTAILS (*Rhipidura fuliginosa*) SEEKING SHELTER

At Sawyers Bay, Dunedin, on the afternoon of 8/6/55, two fantails (apparently a pair) flew frequently at the window of the kitchen of a house situated near a tree-lined creek. Snow lay deep on the ground, while the weather was cold and stormy. The birds also flew into the adjoining wash-house, round and out again quite often. Later, as evening approached, the kitchen window was left open just to see what would happen. Almost immediately the pair flew in, quite unconcerned at the presence of children playing or of tea preparations. They busied themselves with the odd flies resting on the ceiling. After that they apparently disappeared. However, as tea progressed, a squeaky noise was heard coming from wires stretched above a fuel stove and on which clothes were hanging to air. Investigation disclosed them sitting pushed close up to each other with their heads tucked into each other's neck feathers. At 7.15 p.m. one flew round and round the kitchen and found the last fly, with a tiny snap-snap of its beak. It was soon called back to its mate, which protested loudly at being left alone. They slept thus during the evening and through the night. Next morning they remained on their perch when lights went on about 7 o'clock, flew around often till 9 o'clock, but refused to go out of the open door or window. It was not till the day was clear and warm that they disappeared outside. These little birds seemed to have shown a knowledge of the desirable conditions inside the house

and a determination to make use of them for the night and until the weather cleared next morning.

W. M. BURROWS

GOLDFINCH (*Carduelis carduelis*) COLLECTING NESTING MATERIAL

On the fine afternoon of 21/1/55 a goldfinch was seen gathering nesting material from under the eave of a shed. Along the wall of this building was trained an apricot tree. Flying to a small branch, the bird reached forward to seize a mouthful of brown, silky spider's nest which was firmly attached to the rough surface of the wall. Tugging with all its might, it gradually pulled the silk away till its head was back to the normal starting position. But still the silk held firmly to the wall. Wits its head raised high, it continued to pull, throwing its weight outward till it was lying horizontal to the branch — back down and belly up. The silk still held. It then swung downward till it could pull no further. Then, fluttering its wings, it gave a jump outward so that its whole weight plus the wing beats jerked most of the silk clear. It flew away trailing some six inches of the gossamer to its nest in a tree nearby. All this took about a minute, during which the cock bird (presumably) sat on a nearby branch watching and calling. When the hen flew, he followed her to the nest. The observer, looking out from a netting window unseen in the darkened interior of the shed, was within two feet of the hen bird and thus had a very good view. The process was repeated till the supply of material was exhausted.

W. M. BURROWS

BEHAVIOUR OF BUSH HAWK (*F. novaeseelandiae*) IN WELLINGTON

On 18/5/55 my sister, Miss Z. A. Wilkin, placed a cage containing one yellow and one blue budgerigar on a chair near a closed upstairs window overlooking a gully, which has a little creek at the bottom and many trees along the sides, and is situated between Kelburn Park and The Terrace, near the centre of Wellington City. The weather was fine and warm. Suddenly at 4 p.m. a dark brown, very graceful hawk with fine white eyebrows and with the under-tail and thighs flecked with cream-beige, appeared fluttering at the window trying to get at the budgerigars through the glass. Miss Wilkin opened the window and the hawk then tried to get at the budgerigars by attempting to settle on her arm and shoulder, and she had to push it outside again. The hawk was very gentle and quite noiseless, even the wing beats being inaudible. The budgerigars fluttered around in their cage and one was so terrified that it fainted on the bottom of the cage, but came round again later. When the window was shut again the hawk settled on a tree close outside and returned nine times, fluttering about the window as if trying to gain entrance. It remained close by for about twenty minutes, during which time Miss Wilkin obtained a camera and attempted to photograph it. When Dr R. A. Falla, Director of the Dominion Museum, was consulted about the hawk, he said that the above was a good description of a young Bush Hawk.

FRANCIS E. WILKIN, Wellington

SHARP-TAILED (Siberian Pectoral) SANDPIPER NEAR INVERCARGILL IN MAY

On 17/5/55 we noticed a small wader feeding beside one of the small pools which were dotted about the floor of what was once L. Hawkins, near Invercargill. As it tended to stay by itself and showed no desire to consort with a scattered flock of Banded Dotterels (*C. bicinctus*), we had little difficulty in watching it for as long as we liked at about the distance of a chain; and as soon as it was seen in a favourable light we were able to identify it as a Sharp-tailed Sandpiper (*C. acuminata*) in breeding dress. So richly