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MURRAY WILLIAMS, *Wildlife Service, Department of Internal Affairs, Private Bag, Wellington.*



SHORT NOTES

OBSERVATIONS ON THE CHATHAM ISLAND PIGEON IN CASCADES GORGE

In March 1977, A. E. Billing and I formed a small Wildlife Service party that searched for 12 days in the Cascades Gorge region (c.20 ha) of Chatham Island for the endangered Chatham Island Pigeon (*Hemiphaga novaeseelandiae chathamensis*).

To determine whether pigeons were in the gorge, I spent the first day scanning the forest from vantage points along the rim of the gorge. In six hours, nine sightings were made. The Chatham Island Pigeon, being large and noisy of flight like the New Zealand Pigeon, was most obvious when flying above the canopy of the forest. On sunny days, the birds were often conspicuous from a great distance as they rested on prominent perches where their dazzling white breast plumage stood out against the darker background.

At the time of our visit, the adult pigeons were undergoing tail moult, and we could recognise individuals at close quarters by differences in their tail shape.

Population

During our visit, ten different Chatham Island Pigeons were recognised in the gorge. Seven were adults, two were juveniles — each closely accompanied by an adult — and a single fledgling was seen once, accompanied by its parents.

The two juveniles were similar to adults in plumage colour but their eyes were hazel brown instead of crimson as in adults and the otherwise brightly coloured bill was still dark at the tip.

The fledgling pigeon was much duller than the parent birds. Its head and neck were drab grey, and slightly paler than on the adult, and around the eye was a faint area of buff. The eye itself was dark, almost black, the bill appeared shorter than that of an adult, and was purplish brown, blacker towards the tip. The feet were dull purplish red.

Behaviour

When not feeding, the birds were generally seen perched on some prominent limb, with tail drooping, the wings closely folded and the head drawn in.

However, on the first day 17 March 1977, two pigeons were watched 'hang gliding' from the top of the cliffs on the western wall in bright sunlight. Each bird in turn soared out over the gorge in a wide arc, then returned to the rim, only to reappear minutes later and repeat the circuit. This continued for almost half an hour until the weather became overcast and the birds moved down into the gorge.

Forbes (*Ibis* 1893, p. 527) must have observed similar behaviour on many occasions during his visit in 1892 for he wrote that along the south coast "... it loves to play in the strong up current that towers into the air, rebounding from the perpendicular face of the cliffs, when a strong sea breeze is blowing."

Several days later, two pigeons were again seen up on the western rim, this time resting in the late afternoon sun. After some 35 minutes, the sun finally left the rim, and within 5 minutes the birds left too, dropping down into the gorge. As they flew from tree to tree down the steep western wall, the second bird of the two repeatedly tried to displace the first from its perch whenever it attempted to land, coming in so close behind that the first bird was forced to leave its perch and move on, the second bird landing briefly before taking off once more in pursuit.

The fledgling pigeon was seen on 26 March, apparently only recently out of the nest. After moving clumsily about in a *Coprosma chathamica* feeding on the foliage, the bird flew to the edge of a nearby clearing and landed on the ground. An adult pigeon sat on a fallen branch close to where the fledgling landed, and a short distance off a second adult sat in a karaka (*Corynocarpus laevigatus*). This bird later flew down to sit on the ground near the fledgling. For some time the fledgling fed on the leaves of *Hydrocotyle* growing on the ground. When it was disturbed by a weka, it hopped up on to the fallen branch beside one of the adults for a short time while the other adult remained on the ground nearby. Both adults continued mostly to rest but the fledgling was soon back on the ground feeding.

Suddenly, for no apparent reason, the adult on the fallen branch flew directly at the youngster, which flew up into a nearby tree. The attacker, presumably the male, turned to face the other adult and with feathers slightly puffed and tail and wings drooped so that their tips dragged along the ground, it walked towards the second pigeon, head bobbing extravagantly, and then flew at it. Both birds rose about one metre into the air and tumbled together, then landed again. This tumbling was repeated a second time, and then both pigeons flew to a nearby karaka.

This very brief display was remarkably similar to the posturing and head bobbing of domestic pigeons (*Columba livia*).

Feeding

Most of our observations were of feeding birds.

Pigeons were watched feeding on the foliage of two forest-tree species. The leaves, buds and shoots of the ribbonwood (*Plagianthus betulinus* var. *chathamicus*) were frequently taken. A bird would alight in a tree and would proceed to strip all the branches immediately around it, before shifting to another perch. Leaves were torn off in fragments until the entire leaf and stalk had been eaten. The leaves, terminal shoots and green leaf stalks of *Coprosma chathamica* were also taken. After eating leaf and stalk, a bird would often break off and eat the green shoots up to 10 cm long. Although *Coprosma* berries are probably eaten too, none were seen to be taken.

Pigeons were seen feeding on the *Hymenanthera chathamica*, *Myrsine chathamica*, and *Pseudopanax chathamica*, even though the berries of the last two were still hard and green.

Of the shrubby species growing in thickets along Cascade Stream, pigeons ate both leaves and the berries of *Coriaria arborea* as well as the ripe fruits of *Macropiper excelsum* which were carefully stripped off their spindles.

Of the creepers and vines the Chatham Island Pigeon fed on the leaves of *Calystegia tuguriorum* where it draped the foliage, again mainly along Cascade Stream, and the ripe berries of *Rhipogonum scandens*, especially where its large bunches of red berries were abundant along the rim of the gorge on the warm western wall.

Two small herbs growing on the grassy slips and clearings, that were frequently grazed by pigeons were *Hydrocotyle* spp. and *Epilobium* spp.

Three species which previous observers have recorded as being taken were also growing in the gorge, *Rhopalostylis sapida*, *Corynocarpus laevigatus*, and *Corokia macrocarpa*.

ROD MORRIS, 4 Ocean Parade, Pukerua Bay.



BREEDING OF THE CHATHAM ISLAND FANTAIL

From 17 November to 27 December 1978 we made observations on the breeding of the Chatham Island Fantail (*Rhipidura fuliginosa penitus*) in the Tuku and Awatotara Valleys in the south-west of Chatham Island. Five occupied nests were found and notes were kept on several other pairs and family groups in the region. These observations supplement those made at a nest the previous summer (Dennison *et al.* 1978).

The nests resembled those of the mainland subspecies (*R. f. placabilis* and *R. f. fuliginosa*) in construction and site. Nests were found in *Coprosma chathamica*, *Cyathea dealbata*, *Dracophyllum arboreum* and *Hymenanthera chathamica*, the lowest at 1.5 m in *C. dealbata*, the highest at 5 m in a *H. chathamica*. They were composed