

It will be interesting to observe in future years the effect of the competition imposed on the Bar-shouldered Dove by the two intruding and rapidly-expanding species, the Crested Pigeon and the Indian Dove. The habits and economy of the three species are almost identical.

Bronze-wing Pigeon—*Phaps chalcoptera*

Although never numerous in the district, the Bronzewing is sometimes observed on the upper river. It is not a scrub-haunting species and is most frequently seen on the hardwood ridges of the lower Richmond Range.

A Record of the Turquoise Parrakeet

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Chaffer and Miller (1946)* have reported on the occurrence of the hitherto considered very rare Turquoise Parrakeet (*Neophema pulchella*) and in their paper outlined the history of the species with its subsequent rapid diminution in numbers and total disappearance over most of its former range. Since the publication of this interesting paper the species has been reported from other localities and seems to be increasing slowly in numbers and distribution. The purpose of this paper is to report a further occurrence of the species near Griffith, N.S.W.

To the north of the Murrumbidgee Irrigation Areas, and extending northwards, lies the McPherson Range of steep rocky hills timbered chiefly with a mixture of bimple box (*Eucalyptus populifolia*) and cypress pine (*Callitris glauca*). The soil is scanty and little or no grass and herbage grows, except in the winter and early spring and then only for a brief period. The whole area is barren and inhospitable. Along the range, however, there are small valleys well sheltered by the rocky cliffs and hills, and which often contain springs and intermittent creeks. In these small valleys the microclimate is milder than in the remainder of the district, and for most of the year abundant seeding grasses and annual plants are to be found. A wealth of bird life is found in these situations and they are in fact the sole haunt of several species inhabiting the district. Among these valleys the Turquoise Parrakeet has been observed on several occasions.

In the range the species has been seen in three different localities about twenty miles apart, but inaccessibility of two of them has limited repeated observations to one position twenty miles north of Griffith. This paper will deal only with this site, but the other areas are:

1. Near Rankin Springs, October 1949—one male seen flying overhead.

* Chaffer, N., and Miller, G. (November, 1946) *Emu* 46, 161-168.

2. Near Store Creek, October 1951—a single pair seen feeding among immature barley grass.

In each case the localities are very similar ecologically to that described below.

The particular valley inhabited by the birds is small, about one mile long and a quarter of a mile wide. It is fairly heavily timbered at one end, but the other opens out into bumble box savannah. A reasonably permanent spring maintains a small waterhole under the cliff, and following the winter rains a small creek flows, but dries up completely by December.

On November 16, 1949, the first Turquoise Parrakeets were seen when an immature pair were flushed from a small waterhole in the creek bed when it was barely daylight. A close watch was kept for several hours but the birds did not return. From that date onwards a watch was kept at the waterhole each week-end and the valley and surrounding hills were searched fairly thoroughly.

The birds watered regularly at the small waterhole at which they were first discovered, and the flock was found to consist of four immature birds. They would regularly arrive in the trees around the waterhole immediately before first light, the first sign of their presence being a fairly shrill but musical whistle as they arrived and then maintained a musical twittering. The birds would remain in the trees for ten to fifteen minutes before coming in to drink and when they did so were quite nervous. This could not have been due to the observer's presence because there was good cover available. The first move usually was made at first light, or even just before, and would consist of fluttering over the water and returning to the trees singly or together. Eventually the group would apparently become convinced of safety, and suddenly would silently swoop to the ground, literally run to the water's edge, drink rapidly and then depart with a whistle. The waterhole was kept under constant observation throughout several separate days but on no occasion did the birds return to drink a second time in the one day. This habit was in marked contrast to that of the Budgerygahs (*Melopsittacus undulatus*), Red-backed Parrots (*Psephotus hæmatonotus*), Mulga Parrots (*Psephotus varius*) and Ringnecks (*Barnardius barnardi*) which would all return several times during the day, especially as the weather grew drier, and the author had artificially to replenish the pool weekly, from drums.

The group of young birds was frequently seen feeding, and also two separate mature cocks were found. Contrary to Chaffer and Miller's findings the birds were always extremely shy and on being approached would fly to a nearby tree immediately with the very characteristic fluttering

flight with tail feathers outspread. They would never remain in the tree long but would take off, the flight being now very straight and rapid.

The birds seemed to confine their feeding to the morning until about eleven o'clock and to the afternoon after about four. Where they spent the remainder of the day was not discovered. They were chiefly seen feeding on the ground, their colouring making them inconspicuous in the spring, but quite obvious against the bare red earth of the summer.

The birds were most frequently observed feeding among the following plants, presumably on the fallen seed, namely barley grass (*Hordeum murinum*), wallaby grass (*Danthonia semiannularis*), wild mustard (*Sisymbrium* sp.), stinging nettle (*Urtica urens*) and saffron thistle (*Carthamus lanatus*).

A thorough search in 1949 failed to discover the nesting place, although the reared clutch and the two solitary cocks indicated breeding was going on in the vicinity.

In 1950 the search was resumed, and although two groups of immature birds were seen, in addition to several isolated birds, no nests were found. On one occasion a cock was observed driving a group of Budgerygahs from a tree. It was a surprising performance for the gentle *Neophema*. With feathers and tail spread he fluttered at them with a shrill chatter and the Budgerygahs departed swiftly. This was considered to indicate a nest in the vicinity, but, although the area was searched and the bird seen in the area on several occasions, no nest was found.

Thus in 1949 and 1950 a small number of the birds were present and breeding in the valley during the spring and summer months. During the winters of these years they could not be found. It is considered that because of winter rains in the region it is possible for the birds to move further afield in the hills, returning to the valleys only with the drying up of surface water. So far this year only one bird has been seen, but it has been an exceptionally rainy spring for the area and all creeks and depressions contained surface water so it is probable the birds are further afield than in previous years.

Although it would be practically impossible to confuse this bird with any other species in this region, one specimen was caught alive and its identity confirmed by thorough examination.

The presence of the birds feeding in this locality is promising for the survival of the species as the area appears ideally suited to them and is sufficiently rugged and inaccessible to preclude future agricultural development and to discourage much disturbance of the fauna.