

LARGE FLOCK OF SCARLET-CHESTED PARROTS IN THE GREAT VICTORIA DESERT

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SUMMARY

A large flock of Scarlet-chested Parrots *Neophema splendida* was observed in the Un-named Conservation Park in the Great Victoria Desert of South Australia in May and June 1993. Many of the birds were immatures, suggesting that breeding had taken place during the summer of 1992–93. Observations were made on the birds' feeding behaviour and their calls. Sonagrams of tape-recordings of these calls are presented.

INTRODUCTION

Although the range of the Scarlet-chested Parrot *Neophema splendida* covers large tracts of arid

southern Australia, it is generally considered rare (Garnett 1993). The Great Victoria Desert, which lies north of the Nullarbor Plain and extends to the Pitjantjara Aboriginal Lands in far NW South Australia and the Gibson Desert in Western Australia, is now regarded as the centre of distribution of the species (Blakers *et al.* 1984; Black and Badman 1986; Garnett 1993). Despite low sporadic rainfall, the desert is well vegetated with open mallee woodlands, mulga *Acacia aneura*, marble gum *Eucalyptus gongylocarpa* and black oak *Casuarina pauper*; and porcupine grass (*Triodia* sp.) or other tussock grasses in the understorey.

As a result of extensive field work in the eastern Great Victoria Desert since 1970, small numbers of Scarlet-chested Parrots have regularly been recorded, with some breeding records documented (Ford 1971; Henderson 1977; Black and Badman 1986; Robinson *et al.* 1990). Much of that work has centred either on the Un-named Conservation Park, an inverted L-shaped park in South Australia covering 21 000 sq. km and abutting the W.A. border in the heart of the desert, or in the Yellabinna Wilderness, an area of mallee-covered sand dunes extending west from the Gawler Ranges into the southern Great Victoria Desert (Henderson 1977; Black and Badman 1986; Matthew and Carpenter 1990; Robinson *et al.* 1990).

Large flocks of Scarlet-chested Parrots have occasionally been recorded; for example in 1939 at Wynbring on the southern periphery of the Great Victoria Desert (Forshaw 1981) and in the mallee N of the River Murray from 1960-66 (Joseph 1976).

In this paper we report recent observations of large flocks of Scarlet-chested Parrots in the Un-named Conservation Park which contribute to understanding the biology of the species.

RECENT RECORDS

Location, Numbers and Habitat

In the mid-afternoon of 13 May 1993, DAS and his party's vehicle flushed about 12 Scarlet-chested Parrots from the ground at the side of the track, 9 km south of Vokes Hill Junction (28°32'S, 130°38'E) in the Un-named Conservation Park. It then became apparent that a large flock consisting of many smaller groups was in the area. DAS counted birds in these small flocks, which on one occasion totalled 240 individuals, and T. Palliser counted 170+. As these counts did not include all birds present, it is likely that between 300 and 500 were in this general area.

MDSS and his party observed a minimum of 120 Scarlet-chested Parrots, presumably the same flock, in the same area from 22-23 June. DAS noted that the ratio of adult males and birds with some red on the breast to uncoloured birds was approximately 2:1. Many males had only patchy red colouration on the breast, indicating that they were around six months old (Forshaw 1981). In addition, MDSS's party had recorded two adult pairs 112 km W of Vokes Hill Junction on 18 June.

The habitat at the location where the large flock of parrots was seen comprised dunefields of mixed acacia and grevillea shrubland (mulga, honeysuckle grevillea *Grevillea juncifolia*, and rattlepod grevillea *Grevillea stenobotrya*) with some *Ooldea mallee*

Eucalyptus youngiana, over an understorey of desert thryptomene *Thryptomene maisonneuvei*, crimson turkey-bush *Eremophila latrobei*, porcupine grass *Triodia basedowii* and tussock grasses *Aristida* spp.

Behaviour

Both parties observed flocks of parrots feeding on desert thryptomene shrubs and from the surrounding ground. The thryptomene was growing mainly along interdunes and dune slopes and was seeding prolifically. Parrots were also seen feeding from the ground amongst *Triodia* sp. The two birds observed on 18 June by MDSS were feeding in a sandy depression encircled by sand ridges approximately 5 m high. This depression contained three main plant species, namely seeding porcupine grass, desert thryptomene and flowering crimson turkey-bush. In each case, it was not determined conclusively if the parrots were taking the fruits of the plants described. The only previously recorded food items for wild Scarlet-chested Parrots are grass seeds (including *Triodia* sp.) and acacia seeds (Barker & Vestjens *nd.*).

The birds were indifferent to human presence, flying in to perch in dead trees within 4 m of observers. They flew in small flocks, usually below the tree line. The extensive yellow areas on the lateral tail feathers were very apparent as birds weaved about in flight.

When approaching the feeding area of the 18 June sighting, an adult male initially flew into a 'sentinel' tree adjacent to the sandy depression. With a plaintive call, he summoned a female into the tree, whereupon both descended to the ground to feed. This behaviour was repeated several times. From this exposed dead tree in the middle of the feeding area the birds could watch for danger.

MDSS's party twice noted females inspecting hollows in dead mallees, one hollow being only 1.2 m from the ground in a burnt stump. Marble gum, a favoured nesting tree of the species (Henderson 1977), was not present at the site.

While spotlighting one night, DAS's party flushed six birds that were roosting in a black oak.

Calls

Calls of the Scarlet-chested Parrot are generally described as a soft twitter, unlike those of other parrots of the genus (Forshaw 1981). The most obvious call we heard was a clear 'kee-up' whistle, which carried clearly for 200 m and was usually given by a perched bird. This call was reminiscent of the flight contact call of the White-browed Woodswallow *Artamus superciliosus*. Another call was a soft 'whick-up', sometimes repeated and made when in flight. A

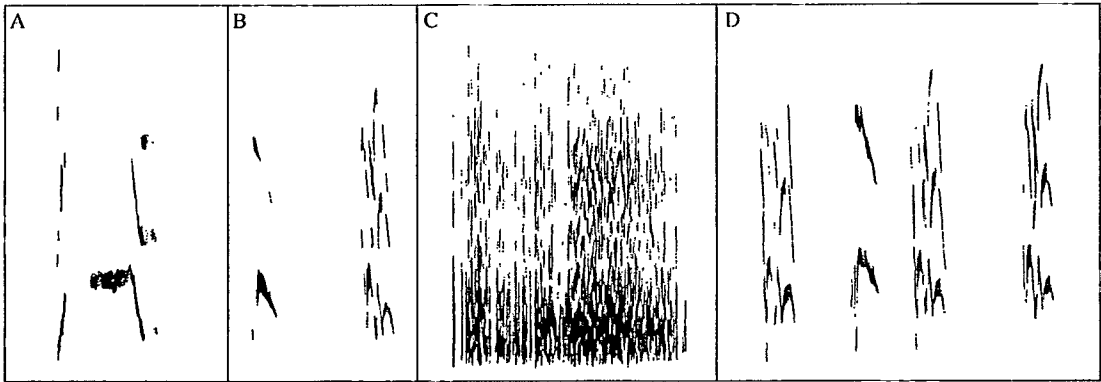


Figure 1. Sonograms of Scarlet-chested Parrot calls. A = Single clear whistle 'kee-up' (perched); B = 'whick-up' (perched); C = Harsh soft 'churr-churr' (perched); D = Repeated soft 'whick-up' (flight).

harsh, soft 'churr-churr' was occasionally given by perched birds. Other soft twitterings, which sounded quite musical when made by birds in a flock, were common. DAS noted that the parrots were most active and vocal early in the morning when they called continuously while moving around in small groups before they started feeding.

Recordings of these calls, taken by DAS, were later prepared as sonograms (Figure 1) by Dr P.J. Fullagar using a KAY Elemetrics Corp. 7800 digital storage Sona-Graph.

CONCLUSION

Apart from adding new information on the feeding habits of the Scarlet-chested Parrot, this paper provides the first documentation of sonograms for the species.

As a desert-inhabiting species, Scarlet-chested Parrots presumably breed in response to favourable local conditions. For example, Robinson *et al.* (1990) provided evidence that they begin nesting as early as April given appropriate conditions. The large number of birds (particularly immatures) observed in the Un-named Conservation Park in May and June 1993 probably resulted from a breeding event in the summer of 1992-93, triggered by heavy local rainfall in the centre of the desert in early summer.

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