

THE FOREST RAVEN *CORVUS TASMANICUS* — A NEW RECORD FOR SOUTH AUSTRALIA

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INTRODUCTION

As a result of work carried out by the C.S.I.R.O. Division of Wildlife Research, the former 'Australian Raven' was found to consist of three very similar but separate species:— the Australian Raven (proper) *Corvus coronoides*, the Little Raven *C. mellori*, and the Forest Raven *C. tasmanicus* (Rowley 1970). Although the first two species are widespread in South Australia, the Forest Raven has not been formerly reported from this state. The present note describes the occurrence of the Forest Raven in the South-East of South Australia where it seems to be fairly common.

THE BOOL LAGOON SPECIMEN

The presence of the Forest Raven was confirmed by the collection of a specimen at Bool Lagoon on August 9, 1970. The bird was an immature female *Corvus tasmanicus tasmanicus* and the study skin (R 1362) has been presented to the South Australian Museum.

The measurements of this specimen, and of three additional specimens collected between 19-21 March, 1976, are shown in Table 1, together with the means and ranges of adult female *C. t. tasmanicus*, *C. mellori*, and *C. coronoides*, as presented in a recent review of the genus *Corvus* in Australia (Rowley, *loc. cit.*).

Further details of specimen R 1362 are: iris, brown; tongue and inside of bill, bi-coloured, pink and black; inter-ramal area almost completely featured with throat hackles inconspicuous and bifurcate. Some of the inter-ramal skin showed, and this was also coloured pink and black. The gape was pinkish-grey but the primaries and rectrix showed substantial wear; all these characters suggest that the specimen was a young bird, hatched the previous season (Rowley, *loc. cit.*).

The main morphological features differentiating *C. t. tasmanicus* from *C. coronoides* is the throat hackle length (>45 mm for *C. coronoides* <45 mm for *C. tasmanicus*) and the large amount of loose bare skin in the inter-ramal area of the *coronoides* compared with the well-feathered inter-ramal area of *C. tasmanicus*. *C. tasmanicus* is separated from *C. mellori* by the former's more massive bill, extremely long tarsus and heavier weight (Table

1). The bill of specimen R 1362 exceeds the maximum culmen measurement of adult female *mellori* by 6 mm and even exceeds the maximum culmen of adult female *tasmanicus* by 2.0 mm; the very long tarsus measurement of 66.5 mm is longer than either male or female *mellori* and only 0.5 mm less than the largest previous specimen of female *tasmanicus*.

The moderately low weight is accounted for by the bird being in poor condition when taken; the sternum was very prominent and the plumage decrepit as if the bird was sick. The relatively small wing and rectrix compared to *C. t. boreus* places R 1362 in the nominate race *C. t. tasmanicus*.

OTHER RECORDS IN THE SOUTH-EAST

A diagnostic character which is not evident in dead specimens is voice. All species of corvid in Australia have distinctive calls and, with practice and experience, it is possible to separate all species on call alone. Before transferring to Adelaide I had participated in field work on the distribution and ecology of Australian corvids with Ian Rowley and Graeme Chapman (C.S.I.R.O. Wildlife Research) for more than

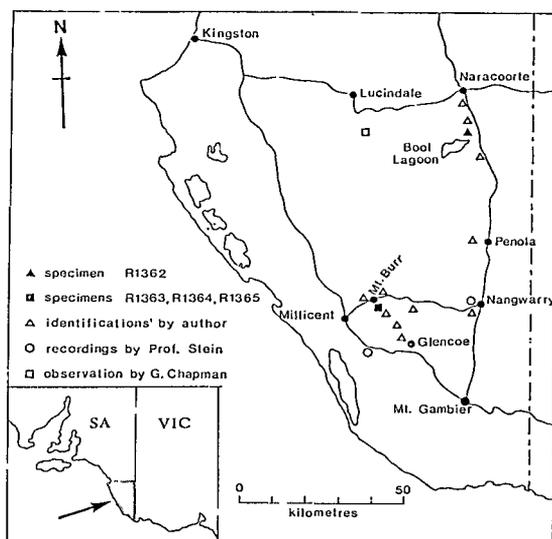


Fig. 1.

two years. During this time I became very well acquainted with all *Corvus* calls, but with those of *C. tasmanicus* in particular, as it was during this time that *C. tasmanicus* was first recognised as a separate species. This familiarity with their voice enabled me to make reliable call identifications of *C. tasmanicus* in the south-eastern region of South Australia.

Figure 1 shows the locations where I have positively identified *C. tasmanicus* by call. More recently, Professor R. Stein of the State University College at Buffalo, U.S.A., spent a year working in Australia on *Corvus* calls. Professor Stein travelled extensively and made recordings in the Mt. Burr-Glencoe-Nangwarry area on 27 August, 1971. These recordings have been confirmed by Messrs. Rowley, Chapman and myself as belonging to *C. tasmanicus*. These recordings are now in the C.S.I.R.O. Division of Wildlife Research tape collection at Helena Valley, W.A. (Cat. No. S 731).

In March, 1976 I obtained three more specimens of *C. t. tasmanicus* (R 1363, R 1364, R 1365) from the Mt. Burr area (see Fig. 1); and the measurements of these birds further confirm the presence of *C. tasmanicus* in South Australia (see Table 1). These specimens have been

lodged in the Australian National Wildlife Collection, in the custody of C.S.I.R.O. Division of Wildlife Research, Canberra.

In February, 1977 Graeme Chapman travelled through the Bool Lagoon area and heard *C. tasmanicus* calling south of Lucindale at Big Heath National Park (Chapman, pers. comm.); this record is shown on Figure 1.

Throughout most of the area covered by Figure 1, both *C. coronoides* and *C. mellori* are common, and so direct comparison of calls is possible.

DISCUSSION

The existence of *C. t. tasmanicus* in South Australia is of interest, because the previous known mainland distribution at Wilson's Promontory and Cape Otway showed two common factors:— (a) the presence of wet sclerophyll eucalypt forest; and (b) the occurrence of the species alone, the breeding range being allopatric to those of both *C. coronoides* and *C. mellori*.

The population described in this paper does not strictly conform to these criteria, because mixed feeding flocks of *C. tasmanicus*, *C. mellori* and *C. coronoides* were occasionally sighted

TABLE 1
Measurements of South Australian specimens with means and ranges of adult female
C. t. tasmanicus, *C. mellori*, and *C. coronoides*.

Sex	Age	Length (mm)				Throat Hackle	Weight (g)
		Central Rectrix	Wing	Culmen	Tarsus		
<i>C. t. tasmanicus</i> Sp. No. R 1362							
F	Immature	191.0	341.0	60.5	66.5	34.0	535
Sp. No. R 1363							
F	Adult	192.0	342.0	54.5	64.0	39.0	660
Sp. No. R 1364							
F	Adult	195.0	341.0	57.0	64.0	36.0	555
Sp. No. R 1365							
F	Adult	200.0	360.0	56.0	67.0	40.0	615
<i>C. t. tasmanicus</i> *							
F	Adult	192.9 (182-202)	354.5 (340-363)	56.2 (54.5-58.5)	63.6 (61.0-67.0)	37.0 (34.0-42.0)	646.9 (575-695)
<i>C. mellori</i> *							
F	Adult	192.1 (178-210)	337.1 (310-357)	49.0 (42.0-54.5)	58.6 (52.0-63.5)	35.7 (30.0-41.0)	515.4 (365-660)
<i>C. coronoides</i> *							
F	Adult	202.1 (182-216)	358.6 (328-388)	52.9 (47.0-59.0)	62.3 (57.0-67.0)	47.3 (37.0-55.0)	615.2 (500-780)

* From Rowley (1970).

between Bool Lagoon and Naracoorte in short stubble and on open pasture. An adult pair was resident at Bool Lagoon Reserve all year round; and although no evidence of breeding was found, it seems likely that they nested in the vicinity. An intensive study in this area would be needed to determine whether *C. tasmanicus* is in fact sympatric with *C. mellori* and *C. coronoides*, or if the three species overlap only in foraging flocks outside the breeding season.

Throughout the area shown in Figure 1, *C. tasmanicus* showed a preference for exotic pines, mainly *Pinus radiata*. The stronghold of the species seemed to be in the Mt. Burr-Glencoe-Nangwarry region, an area of extensive

pine plantations often on undulating topography and interspersed with fresh water lakes with marshy surrounds. In general appearance the mature pine forest, with its tall trees and dense canopy, has certain structural similarities to the wet sclerophyll eucalypt forest habitat of the Victorian population.

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