

A critical examination of the occurrence of Torresian Crows *Corvus orru* in the Channel Country, south-western Queensland

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We review our survey records and those of colleagues of the occurrence of three corvid species in the Channel Country, south-western Queensland, namely the Australian Raven *Corvus coronoides*, Little Crow *C. bennetti* and Torresian Crow *C. orru*. We conclude that published distribution maps of the Torresian Crow in bird atlases and field guides exaggerate the species' occurrence in the eastern arid zone, and that it is scarce to almost absent in the Channel Country. Most claims of the Torresian Crow occurring in the Channel Country are likely mistakenly based on sightings of Little Crows. Furthermore, eBird claims of the Torresian Crow's presence in the Channel Country, when queried, are often qualified as only tentative identifications and withdrawn. We recommend more critical identification of the two crow species in the Channel Country.

Keywords: Torresian Crow; *Corvus orru*; distribution; inland Queensland; mistaken identity.

INTRODUCTION

The five Australian crows and ravens *Corvus* spp. are similar in appearance and difficult to distinguish from one another in the field. Apart from the long throat hackles of the Australian Raven *C. coronoides* and its bare inter-ramal skin on the chin (visible in a good view), physical differences in the field are slight and restricted to relative size and proportions, with much overlap among species. Field identification depends much more on behaviour and vocalisations, particularly the pitch, tone and tempo of each species' range of calls (e.g. Higgins *et al.* 2006).

In his revision of the Australian corvids, Rowley (1970) showed a rather circumscribed range for the Torresian Crow *C. orru* in Queensland with an absence from the arid zone, the rather sparse layout of his Queensland survey routes notwithstanding (Rowley's Fig. 2). A generous polygon drawn around Rowley's records of this species (his Fig. 20) would exclude its Queensland occurrence inland of approximately Mt. Isa, Hughenden and Charleville, although non-breeding individuals may wander extra-limitally. A similarly conservative distribution map appears in Chapman (2016).

Although national and regional bird atlases have caveats about corvid distribution and the likelihood of misidentifications (Blakers *et al.* 1984; Barrett *et al.* 2003; Cooper *et al.* 2020), their maps of the Torresian Crow's distribution in inland Queensland seem overly generous. Modern bird field guides, based as they are on the atlas maps, exhibit the same problem. So, ornithologists familiar with the Torresian Crow in eastern Queensland might expect to record it inland, potentially overlooking the occurrence of the Little Crow *C. bennetti* in the arid zone. A qualification is that since 1970 the Torresian Crow has increased in abundance in New South Wales, where its range has been expanding south to the Central Coast and inland to Bourke (Barrett *et al.* 2003; Cooper *et al.* 2020; Debus pers. obs.).

Here we summarize the Torresian Crow's distribution in the Channel Country, based on our surveys in the area since 1994, supported by the observations of some other interested and experienced observers. This review seems particularly pertinent because of the number of records of the species from the area that have passed through the public record site eBird (2021) and been taken up and tacitly endorsed by being re-published elsewhere, including in the recently re-established Queensland Bird Report published by Birds Queensland in *The Sunbird* (Niland 2019).

METHODS

We have been accumulating bird occurrence records in the Channel Country since 1994 using the methods described by Ley *et al.* (2011). The resulting records used here are the presence of species by month in grid blocks of one minute of latitude and longitude. The area in which we have operated (Fig. 1) is mostly within the Channel Country Bioregion between about 22-25°S and 141-145°E and is circumscribed by several major national parks: Diamantina and Astrebla Downs to the west, Bladensburg to the north, Welford to the south and Idalia in the east. Other conservation areas within this region are Goneaway and Lochern National Parks and Lark Quarry Conservation Reserve. For these national parks, we have useful numbers of records overall for comparative purposes from Diamantina, Bladensburg, Lochern, Welford and Idalia (Table 1). We have also researched the literature widely and consulted colleagues for accounts and opinions on the distribution of the Torresian Crow in this area. We have also monitored eBird (2021) from time to time for Torresian Crow records. To provide context, we include here counts of our records of the Australian Raven and Little Crow, the other two corvids that we have recorded in the Channel Country.

Table 1

Corvid records in five Channel Country national parks showing, for each park, the survey effort and, for each corvid species, its rate of recording per survey and its overall reporting rate. Reporting rate = species records as a percentage of total records.

	Diamantina	Bladensburg	Lochern*	Welford	Idalia
Survey visits	17	18	8	27	10
Years covered	1996-2015	2009-2021	2012-2018	2011-2019	2015-2021
Total records all species	18714	17424	5067	23534	6275
Australian Raven					
Survey visits in which recorded	16	18	8	26	10
% survey visits in which recorded	94%	100%	100%	96%	100%
Times recorded	370	239	119	566	108
Reporting rate	1.98	1.37	2.35	2.41	1.72
Little Crow					
Survey visits in which recorded	11	3	1	15	1
% survey visits in which recorded	65%	16%	14%	58%	10%
Times recorded	81	4	1	31	1
Reporting rate	0.43	0.02	0.02	0.13	0.02
Torresian Crow					
Survey visits in which recorded	1				7
% survey visits in which recorded	6%				70%
Times recorded	1				13
Reporting rate	0.01				0.21

*Includes the adjacent Noonbah Station

RESULTS

We have obtained just 14 records of the Torresian Crow during our surveys: one from Diamantina and 13 from Idalia. The record from Diamantina on 11 June 2007 was of a single bird traversing the area of observation at height, which was observed and identified by AL and colleague Brian Tynan. By comparison, we have 1,383 records of the Australian Raven and 148 records of the Little Crow. The records for the three species, by national park, are shown in Table 1.

DISCUSSION

From our records the Torresian Crow is absent or virtually so from the part of the Channel Country being considered here. The Australian Raven is overwhelmingly the most common corvid present and at each of the national parks is clearly in the top 20% of species ranked by number of times recorded. The Little Crow falls between the two, but is overall sparsely spread across the region. However, the total number of records for this species probably somewhat inflates its overall long-term abundance, because 25% of the records were from a single visit to Diamantina in June 2006. On that occasion the species was common across the expansive grassland of the national park, presumably gathering in response to a temporary abundance of a food source, possibly locusts.

Among observers with local experience, Angus Emmott (pers. comm. to AL), lifelong Channel Country resident, proprietor of Noonbah Station which is adjacent to Lochern National Park, and keen observer and student of the local wildlife, has not included the Torresian Crow in the bird list for his property. Nick Leseberg (pers. comm. to AL), having spent

five years in the Diamantina area, has concluded that none of his Channel Country corvid records are of Torresian Crows. An eBird moderator and experienced observer, Nigel Jackett (pers. comm. to AL), spent six weeks in the Diamantina area and at Winton in 2019, and concluded that Australian Ravens were the most widespread corvid there. He recorded Australian Ravens and Little Crows at Diamantina National Park, but no definite records of Torresian Crows.

During bird surveys spanning 1987–1991 at what is now Astrebla Downs National Park, adjacent to Diamantina National Park, Stewart and Gynter (2003) paid ‘special attention’ to corvid identification, and field observations were supplemented by later consideration by Graeme Chapman of recordings of calls; no Torresian Crows were identified and the species was not included in the final bird list.

At times in the past there has been a plethora of Torresian Crow records submitted to eBird from our study area. However, the ‘moderation’ of such records has strengthened recently and reduced the number accepted, and it seems that there has been over-reporting of the species. This greater scepticism about reports of the species from the Channel Country is well justified if our lack of records from the area is accepted as a guide. John Lowry (pers. comm. to AL) is a two-year (2014–2015) resident of Winton near Bladensburg National Park, and eBird moderator for the local area. He has found that many of the Torresian Crow records submitted to eBird from the Channel Country are the result of uncertain identifications, and that when approached many observers retract the records. Having set the filter on submitted records so that all Torresian Crow records are automatically queried, he has found that the number of

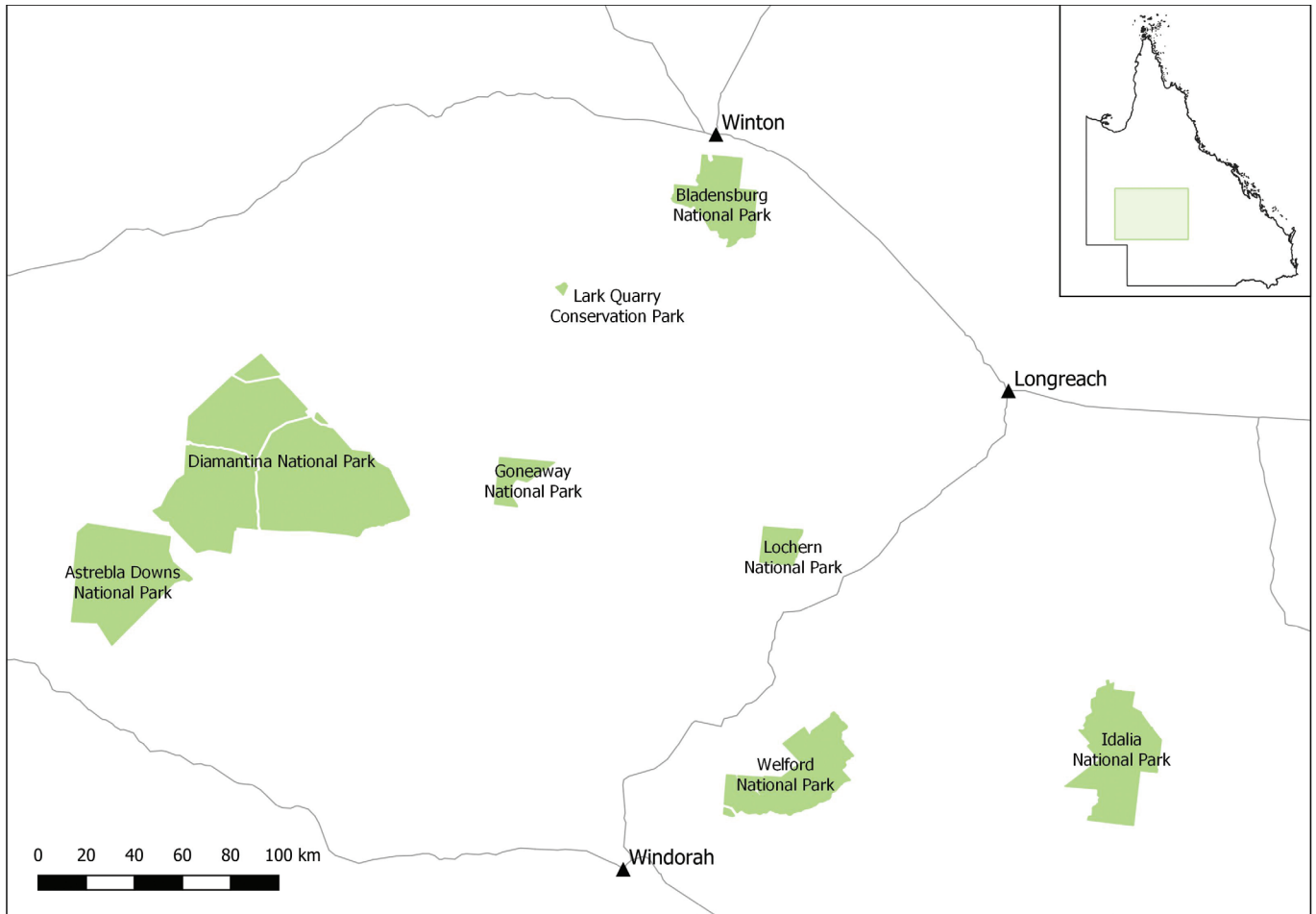


Figure 1. The study area.

(Map by Ofalia Ho)

these records has sharply declined. His conclusion is that the species is ‘most likely out there’ and that ‘some will turn up occasionally’, but he has yet to record any himself.

In a similar vein to eBird, there may have been some overenthusiastic contributions to the *New Atlas of Australian Birds* (Barrett *et al.* 2003). In the entry for the Torresian Crow, the distribution map for the species shows a scattering of ‘presence’ indicators across the area covered by this paper, including specifically the locations of the five national parks featured here. If the paucity of our records is accurate, the atlas map is an overstatement of the actual situation.

The almost complete absence of the Torresian Crow from most of our study area is in a sense emphasised by its occurrence at Idalia, a national park that is just outside the Channel Country, being part of the Mulga Lands Bioregion. On our figures, Idalia is the extreme western limit for the Torresian Crow at this latitude. We have found the species to be very prominent in the Park, although our records are limited to only six grid blocks near the Park’s ranger base, suggesting that the whole population in the Park may consist of only one group. The prominence of the Torresian Crow at Idalia serves to emphasise its absence from the rest of our study area: although it does not prove the species’ absence elsewhere, it does argue against it being present but overlooked by us. Sharp and Sewell (1995) observed the birds of Idalia National Park

from 1991–1994, including the Torresian Crow, designating the species as ‘Common’ and ‘Widely distributed in the park’. It is unclear what spatial coverage of the park was achieved during their observations, but even in a list from 25 years ago this assessment sounds like an over-statement, given the low number of our records and their limited distribution in the Park.

We do not assert that there has never been a valid Torresian Crow record from the study area, but suggest that the species is at least much less common here than is sometimes assumed, and suggest that future identifications be made with great care. With the increasing abundance and range of the Torresian Crow, it would be worth documenting its past, present and future distribution accurately.

The standard field guides cover the identification fundamentals of the five Australian corvid species. Observers seeking greater depth of information are referred to several very detailed and authoritative accounts of the features distinguishing the species which assist identification in the field and in the hand (Chapman 2016; Debus 1995; Higgins *et al.* 2006). Below we offer a summary of the salient features that aid Torresian Crow identification.

The main issue in the present context is distinguishing the Torresian Crow from the Little Crow in the Queensland arid zone. Both species have white feather bases on the head and

neck (although they can be grey in juveniles), and physical differences are minimal, with some overlap in size. With a point of reference, the Little Crow appears to be relatively smaller and more gracile, shorter-legged and with a finer bill (about equal to head length). The Torresian Crow appears to be larger, more robust and compact, longer-legged, with a stouter bill (slightly longer than head length) and a bulkier head outline when calling territorially with the hackles erect. Away from cities, Torresian Crows tend to be wary, whereas Little Crows are quite approachable in outback towns. Little Crows also soar in spirals in flocks.

The most reliable differences are in the species' calls:

Torresian Crow: short, sharp, rapid, nasal caws in often prolonged series, as well as a harsh, 'snarling', longer series of notes given in intense territorial displays or disputes, and a *single* note accompanying the wing-beat pause in display flights. It also emits a distinctive, falsetto, 'yodelling' call.

Little Crow: hoarse, 'flat' caws, deeper in pitch than those of the Torresian Crow, although also sometimes a *short* series of rapid staccato notes, as well as a *double* note accompanying the wing-beat pause in display flights.

Recorded calls can be compared with online examples (e.g. Xeno Canto or bird apps); other clear examples of the calls are available on Graeme Chapman's website (Chapman 2016), and fresh specimens can be measured against the criteria in Higgins *et al.* (2007) or Menkhorst *et al.* (2019) and, ideally, lodged with a museum.

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REFERENCES

- Barrett, G., Silcocks, A., Barry, S., Cunningham, R. and Poulter, R. (2003). *The New Atlas of Australian Birds*. Birds Australia, Melbourne.
- Blakers, M., Davies, S.J.J.F. and Reilly, P.N. 1984. *The Atlas of Australian Birds*. Melbourne University Press, Melbourne.
- Chapman, G. (2016). Torresian Crow. www.graemechapman.com.au/library/viewphotos.php?c=85.
- Cooper, R.M., McAllan, I.A.W., Brandis, C.C.P. and Curtis, B.R. (2020). *An Atlas of the Birds of NSW and the ACT, Volume 3: Eastern Spinebill to Common Greenfinch*. NSW Bird Atlassers Inc., Woolgoolga, NSW.
- Debus, S.J.S. 1995. Crows and Ravens. *Wingspan* 5: 38–42.
- eBird. (2021). *eBird: an online database of bird distribution and abundance*. eBird, Cornell Laboratory of Ornithology, Ithaca, New York. Available: <http://www.ebird.org>.
- Higgins, P.J., Peter, J.M. and Cowling, S.J. (eds.) (2006). *Handbook of Australian, New Zealand and Antarctic Birds, Volume 7: Boatbill to Starlings*. Oxford University Press, Melbourne.
- Ley, A.J., Tynan, B. and Cameron, M. (2011). Birds in Diamantina National Park, Queensland. *Australian Field Ornithology* 28 Supplement.
- Menkhorst, P., Rogers, D., Clarke, R., Davies, J., Marsack, P. and Franklin, K. (2019). *The Australian Bird Guide*, 2nd edn. CSIRO Publishing, Melbourne.
- Niland, D. (2019). Queensland annual bird report, 2017. 11. Channel Country including Simpson Strzelecki Dunefields. *Sunbird* 48: 58–62.
- Rowley, I. 1970. The genus *Corvus* (Aves: Corvidae) in Australia. *CSIRO Wildlife Research* 15: 27–71.
- Sharp, A. and Sewell, S. 1995. Extensions to the known distributions of some birds of south-central Queensland. *The Sunbird* 25: 49–59.
- Stewart, D.A. and Gynther, I.C. (2003). Birds of Davenport Downs Station and Astrebla Downs National Park. *The Sunbird* 33: 1–17.