

# Spangled Drongo Age Indicators

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Spangled Drongos *Chibia bracteata* are present at Wellington Point, Moreton Bay, Queensland from March to September. Apparently they find this a suitable wintering area.

Since 1964 a few have been banded in most years, the total to date being 35 birds. Of these, six individuals have been retrapped on their return in later winters. Something of this has been put on record (Robertson 1973). Other than one bird shot about six km from here no recoveries have been made away from the banding site.

Recording measurements and mass of each bird at banding is routine. Usually some notes of plumage etc. are made too. This was particularly so with the earlier birds so that checks could be made against the descriptions in standard works. It was found that A. J. North (1904) stated—

'Adult male. General colour above black; . . . Underwing coverts black, with a rounded spot of white at the tips; bill and legs black; iris red . . .

Adult female. Similar in plumage to the male. Fledglings blackish brown above and below; wings and tail black. . . . October and four following months constitute the usual breeding season in eastern Queensland and north-eastern New South Wales.'

G. M. Mathews (1927) gave a 13 line description of the adult male which includes—

'Adult male. . . . breast, belly, sides of the body and undertail coverts black, slightly glossed with bluish; under surface of wings shining black. Eyes red, legs and bill black . . . Adult female similar to the male. Immature. Lores, top of the head and back of the neck dull black, spangled with a few blue metallic feathers; . . . cheeks, throat and entire under-surface dull black. Eyes brown, feet and tarsi black, bill black with a white tip. Nestling . . . Feathers of the under-surface of the body dull smoky black. Eyes brown . . . Breeding months: End of September to end of January.'

In Mathews' description there is no mention of the rounded white spots of the underwing as detailed by North. However, the combination of brown eyes and dull black plumage seemed a clear working indicator of an immature bird.

Between 4 and 10 September 1973 here in the garden six new Drongos were banded and a further two banded in previous years were retrapped. Notes were made of the eye colour and the dullness or gloss of their plumage. By the standards above some were judged as adults and some as juveniles. Although no records were taken of the white spotting or mottling on the undersides, it was remembered that this had varied from bird to bird both as to location and extent.

A further check through the details recorded in my field books concerning Drongos banded here previously, showed that they too had exhibited varying amounts of white spotting ventrally. Two birds were recorded with underwing white spots, and a further three with both underwing and undertail white spotting.

Thus this concentration of handling of Drongos, coupled with a check of previous records, led to further efforts to uncover leads on age indicators based possibly on the white spotting or mottling of various ventral areas.

Until recently it was generally accepted that Australian Drongos winter in New Guinea, and there is considerable evidence to show that many do so. Reference was made therefore to Rand and Gilliard (1967 p. 457), where it is stated—

'*Dicrurus [Chibia] hottentottus*. Spangled Drongo.

Adults: Plumage black with iridescent wings and tail, . . . a few underwing coverts tipped with white; . . . iris red; . . . Immatures: all dull smoky black. Range: Southern Asia through the Malay Archipelago to New Guinea, Australia and Solomon Islands. Subspecies in New Guinea. Three, one a migrant . . . (a) *carbonarius* . . . (b) *bracteatus*; Australia migrating to South New Guinea (Fly River area); gloss on plumage strongly green . . .

This reference to the range of these Drongos in the south-east Asia led naturally to H. C.

Robinson (1927) where under Family *Dicruridae* it is stated—

'The Drongos, or King Crows, are a very natural family. . . . Plumage, always black or grey, often spangled with glistening tips. Sexes alike; young, like the adults, but those of the black species spotted or barred with white.'

On the following page is given detail of one of the black species.

*Dicrurus annectens annectens*. The Crow-billed Drongo. Description. Adult. Sexes alike . . . Whole plumage black, all the visible parts with a bluish or greenish gloss. Immature. General colour duller; under-surface and undertail coverts with white tips to the feathers, broader on the tail coverts; underwing coverts and axillaries with large drop-shaped white tips, which are only completely lost in very old birds. Very young birds are still duller sooty black, with broader white bars on the under-surface. Soft Parts. Iris carmine in adults, reddish brown or dark in young birds; bill and feet black.'

These details of the Malayan birds seemed so promisingly similar to the birds recently banded here that it was decided the local group, which had remained in the garden after being handled, should be re-trapped and recorded in more detail. Unfortunately, it was found that by this time the group had moved off, presumably to their summer quarters.

However, on 17 September 1973 a further two Drongos appeared in the garden. A steady watch was kept on the pull-string feeder trap and both birds were secured. One proved to have been banded here on 23 June 1973, the other was a new bird so was banded 060-22735. Their particulars were recorded in greater detail; a summary is set out below. These two Drongos patronised the feeder for the rest of that day and also the next day; then they too vanished.

The following is a summary of records of under-surface white spots.

060-22735 banded and booked on 17 September 1973; iris brown, plumage dull.

- (a) underwing, most of area from leading edge and including axillaries shows white tips to feathers, some big blobs, some small spots;
- (b) undertail many white-tipped coverts and terminates with a white area at aft tip of tract;
- (c) under central breast and abdomen a few feathers white-tipped.

060-22726 banded on 23 June 1973, details booked when re-trapped on 17 September 1973; iris brown; plumage dull.

- (a) under inner wing, three rows of white-tipped blobs on coverts; from carpal joint outwards in a line astern under wing edge fourteen small feather tips spotted white; rest of underwing, other white tips to coverts;
- (b) undertail, white tips to coverts but less than 060-22735 handled an hour earlier;
- (c) along central breast and belly a few white spots.

It should be noted that as Drongos breed in summer, generally early summer, then move off to their winter quarters, these two birds (060-22735 and 060-22726) were very probably about nine months old when these details were recorded.

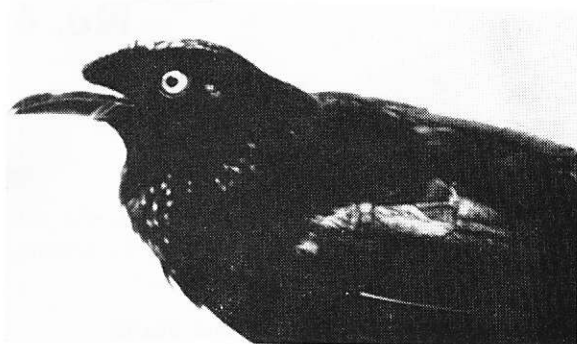
It chanced that Mr & Mrs Weston of Port Moresby visited us here on 22 September 1973. They band birds in New Guinea and had with them excellent colour slides of a Spangled Drongo banded by them on 17 August 1973 near Wau, (7° 18' S., 146° 43' E.). The bird shown on their slides could well have been any adult Drongo caught in my garden here. I am indebted to them for use of one of these slides to illustrate these notes.

As further live Drongos for examination are unlikely to be available here until next winter at least, it was decided to assess the material held in the Queensland Museum, Mr D. P. Vernon, the Museum's Ornithologist, was very helpful and co-operative as usual so that on 26 September 1973 a total of 31 specimens was examined and their details of white markings recorded.

These Queensland Museum Drongo skins may be summarised as—

- 21 showing white spots under wing only;
- 6 showing white spotting under both wing and tail;
- 4 showing white spots on all three areas of underwing, undertail and under body.

It will be appreciated, by banders in particular who are used to handling live but fragile birds, that the dried cabinet specimens with the wings folded in the closed position along the



• Spangled Drongo

Photo: M. T. Weston

body, imposed limits on the extent to which one may safely examine underwing areas. Despite these restrictions it was very clear that the amount of white spotting under the wings varied greatly from specimen to specimen. Some had much white whilst for one or two there was difficulty in being positive of any white spots.

To sum up, it seems that the primary age indicators of young Drongos may be taken as brown eyes instead of the adult's red, coupled with dull plumage whereas the adult shows progressively more gloss or sheen. At which ages these changes occur seems unknown.

Further age indicators are given by the relative amount of white spotting or mottling on the tips of feathers of particular areas of the birds' underside.

First year birds appear to show most white, including—

- (a) On the underwing many white spots and blobs;
- (b) Undertail pronounced white tips on the coverts which group to give an area effect at the rear extremity;
- (c) Under body from the vent along between the legs and onward under the belly and central breast almost to the neck, clearly discernible white mottled areas though more scattered than for (a) and (b).

Observations to date suggest that these underside white markings reduce progressively with age. Thus second year birds perhaps have lost all of the under body or (c) type markings with much reduction of undertail (b) marking and no

doubt some loss of underwing (a) marks. Further age groupings are likely to be indicated by the loss in sequence of all the undertail (b) marks and then progressively the various underwing (a) type areas. This gradual loss of white may well take some years.

Clearly, much remains to be determined by ample recording of individually marked birds together with recovery of the right birds at the appropriate times. These progress details have been set out here as an open invitation to anyone able to join in the elucidation. Undoubtedly the Drongo banded 060-23810 that I had in my hand in five different winters would have supplied some of the answers had I but known the questions at that time.

### References

- Mathews, G. M. (1927), *The Birds of Australia*, 12:284. H. F. & G. Witherby, London.
- North, A. J. (1904), *Nests and Eggs of Birds found breeding in Australia and Tasmania*, 1:86 Aust. Museum. Sydney.
- Rand, A. L. and Gilliard, E. T. (1967), *Handbook of New Guinea Birds*, p. 457. Weidenfeld and Nicolson. London.
- Robertson, J. S. (1973), 'Winter Area Behaviour of Drongos and Forest Kingfishers', *Aust. Bird Bander* 11:3.
- Robinson, H. C. (1927), *The Birds of the Malay Peninsula*, 1:267. H. F. & G. Witherby, London.

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