

SHORT NOTES

Movements of individual birds in a population of the Black Swan *Cygnus atratus*

Movements of Black Swans marked in south-eastern Australia are confined to that region of the continent and are determined primarily by suitable habitat. Marking of birds and observation suggested that the composition of populations was constantly changing, but this could not be accurately assessed because of the size of the populations and the area and nature of the habitats (Frith 1967, *Waterfowl in Australia*; Braithwaite 1966, *M.Sc. Thesis, Univ. Sydney*). Recently marked individuals seen in a small population in a suitable habitat have made an assessment possible.

Observations were made at Lake Albert, Wagga Wagga, NSW on 59 days between 1000 and 1500 hrs on 25 and 26 June, then each day with the exception of 14 and 23 July from 4 July to 31 August 1967. Lake Albert covers approximately 1.7 km². The lake was surveyed through binoculars. All swans were counted and those marked with plastic neck bands noted. Red neck bands had been used to mark swans at Lake Cowal north of West Wyalong, NSW, and yellow bands at Lake George and Lake Bathurst south of Goulburn to mark 2,322 swans till August 1967 (Braithwaite 1966, *Aust. Bird Bander* 4: 78). Yellow neck bands may fade so that during this survey both dark and pale yellow bands were seen.

Daily numbers varied between 0 and 102, with an average of 42. Numbers decreased from about 50-100 in June and July, to generally less than 40 in the last three weeks of August. The variation in numbers between two consecutive daily counts was from 0 to 58; the mean being 10 or 24% of the average population over the 59 days of observations. The maximum number of consecutive days when the same colour of neck band was seen during periods of unbroken census was six. On three occasions a particular colour of neck band was seen on a single day only, on four occasions on two consecutive days, on one occasion on three consecutive days and on one occasion five consecutive days. For six consecutive days (4-9 July) either one or two birds with yellow bands were seen. If one of these birds was resident for the six days and had arrived on 27 June, it would mean that this individual had remained for thirteen days.

Because the swans could not be individually distinguished it is not certain that the same bird was seen on consecutive days, but because there were rather few birds with coloured bands and these tended to be seen on consecutive days, probably the same individuals were involved. Possibly the diurnal movements of the swans biased the census, but observations elsewhere (Braithwaite

pers. obs.) have shown that movements occur from late evening to dawn. Unless disturbed the birds rarely leave their habitat during daylight.

The data nevertheless clearly indicate the instability of a small transient Black Swan population, with probably few, if any, birds being resident for more than one week.

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The taxonomic status of *Acanthiza katherina* De Vis

The most recent reviewers of the genus *Acanthiza* (Mack 1936: *Mem. natn. Mus. Vic.* 10: 86-118, Mayr & Serventy 1938, *Emu* 38: 245-292) regard *Acanthiza katherina* as a subspecies of *A. pusilla*. The two forms are closely related, but we consider that they are distinct species. *A. katherina* is greenish dorsally with deep olive-buff forehead and yellowish-buff underparts. Thus it differs from the various forms of *pusilla* and approaches *murina* of New Guinea. It differs from *murina* in having faintly developed breast streakings, more pronounced forehead scallopings, a pale dull rufous rump, a longer tail and shorter wing. No form of *pusilla* is so dull on the rump or has breast streakings and forehead scallopings so poorly developed.

An important character for separation, missed by previous reviewers, is the light coloured iris of *katherina*. De Vis (1905: *Ann. Qd Mus.* 6: 41-45) gives the iris colour of *katherina* as yellow. Birds caught in mist nets on Mt Lewis (16°34'S lat., 145°12'E long.), north Queensland, had cream-white irides. Those of *pusilla* and *murina* are reddish and yellowish-white respectively. Both *katherina* and *murina* inhabit montane forest and their general behaviour is similar, but *katherina* frequents the forest canopy rather than the undergrowth where *pusilla* is found. The contact call of *katherina* is quite different from that of *pusilla*, but unfortunately a quantitative comparison is not possible because no tape recording of the voice of *katherina* is available.

A specimen of *katherina* from Mt Lewis is in the CSIRO collection (Reg. No. 6588) and was identified after the examination of the type and other specimens of *katherina* in the Queensland Museum. We are grateful to R. Schodde for first drawing our attention to the presence of a thornbill on Mt Lewis.

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