## Miscellaneous notes on the behaviour of Black and Brown Falcons and Nankeen Kestrels

Harold Tarrant

School of Humanities and Social Science, University of Newcastle, NSW 2308, Australia

When driving along Jones Reserve Road, Bureen, NSW on 25 April 2011, there was (as often) a considerable falcon presence. Nankeen Kestrels *Falco cenchroides* were most common, but there was a group of two Black Falcons *Falco subniger* at one point, and three Brown Falcons *Falco berigora* at another. All larger falcons were occupying power poles, from which they get a good view of potential prey across surrounding open farmland, where insects, small mammals, and well-adapted bird species (particularly feral species and cockatoos) can reach plague proportions.

Power poles have multiple uses for Black Falcons, since they provide a safe position as well as a vantage point. On 25th April one Black Falcon, suspected to be an immature, allowed me to approach to an angle of about 45 degrees with no attempt to move, which I consider unusual for an adult of this species. The other bird did take off when I had approached to about 40 metres away, and was last seen circling without incident close to a Nankeen Kestrel. I had previously watched an adult Black Falcon perched on a power pole in order to eat a Galah Eolophus roseicapillus (again at Bureen, but in April 2010), while a recently fledged juvenile was constantly present on a pole for a few days (near Morpeth, October 2002). The juvenile's tail and wing feathers were still poorly developed, and if one approached too close it would take off, fly unconvincingly in a circle, and return to the same favoured pole.

It is well known that the Brown Falcon is a generalist compared with most raptors, with a wide range of hunting techniques and a variety of prey (Olsen 1995: 88). Unlike more typical falcons that concentrate on aerial prey, its feet are adapted for taking prey on the ground, as are those of the Nankeen Kestrel (Olsen 1995: 19), whereas its wingtips are slightly rounded. This enables them to be 'great opportunists and versatile hunters' (Olsen 1995: 95). My two encounters with the species that day illustrate this.

Three Brown Falcons and two Nankeen Kestrels had gathered along a stretch of less than a kilometre, clearly interested in the same grounddwelling prey. As I approached the last of the Brown Falcons, which was separated from the other two by a slightly greater distance, it left its pole and dropped to the ground to a point where there was a Nankeen Kestrel, presumably in an attempted act of piracy. While piracy between raptor species is widespread (Olsen 1995: 96), in this case it meant that neither bird had a meal as a result. The two birds rose, and the Nankeen Kestrel made three aggressive approaches at the Brown Falcon. The larger bird did not return any aggression, and went quietly back to its pole. One might then have expected the kestrel to distance itself from this bird so that it could forage with less risk of further conflict, but instead it took up a position on the next pole along. I was inclined to interpret the incident as an indication by the kestrel that its larger neighbour had transgressed the expected rules of communal foraging. In circumstances where three Brown Falcons and two Nankeen Kestrels are all looking for prey within a short distance of one another, it would have been desirable to develop some more cooperative approach to hunting to ensure that prev is not lost altogether by squabbling between the competitors. On 29th May I returned to the area, and two Brown Falcons were occupying approximately the same area, with two kestrels fairly close. There was, however, no third Brown Falcon. As a result I suspect that a pair of Brown Falcons and a pair of kestrels had developed cooperative behaviours while foraging for the same prey, and that the third bird, seeing an opportunity, had temporarily intruded and taken advantage of a degree of mutual accommodation that had developed between the two species.

Returning to April 25th, about ninety minutes later on Martindale Road I encountered a light-phase Brown Falcon, with no signs of immature plumage, so positioned in the middle of the road that I could not easily pass by on either side. I slowed expecting it to take off, and pulled up on the verge alongside it when it did not do so. I am used to Brown Falcons allowing one to approach somewhat closer than Black Falcons, but this was exceptional. The falcon was reluctant to move because it was in possession of a Crested Pigeon Ocyphaps lophotes, several of which were close at hand. The size of the pigeon was in sharp contrast to the size of prey likely to be won by an act of piracy on a kestrel. Presumably it had caught it there on the ground without disabling it, and was therefore about to attempt to eat it without moving. Attacking the bird on the ground would make a fast approach dangerous, and the Brown Falcon lacks the momentum and power of the aerial hunting falcons. Both factors would make a quick kill more difficult. I was reluctant to leave the bird in the middle of the road, so I wound down the driver's window to stare at it from two metres away, whereupon the falcon finally lifted its heavy prev and headed off, through the barbed wire fence on the other side of the road. The bird was unable to lift the pigeon through the same gap in the fence that it flew through itself, and when either its legs or its intended prey had hit the wire below it had to let go. It was last seen pursuing the escaped pigeon through a neighbouring garden. The pigeon was still able to fly, but not so well as to shake off its pursuer, and may ultimately have been recaptured.

I have seldom seen a Brown Falcon with avian prey, and never with a bird of this size. A study of Brown Falcons on the Victorian coast from 1999 to 2002 (McDonald *et al.* 2003) explains contrasts in the size and nature of prey. Different pairs of Brown Falcons were found to specialise in different prey, and were able to be classified according to a preference for lagomorphs (rabbits etc.), small ground prey, small birds, large birds, or reptiles. The conclusion states that this tendency to specialise is more likely to result from the availability and vulnerability of different types of prey within particular territories than from dietary preference. Though Figure 2 in that article shows that in terms of biomass, those specialising in large birds took more than 50% of their diet from this class, their individual prey items contained well under 50% large birds; large birds provided very little of the diet of the pairs with any of the other four specialisations. Moreover Table 3 shows that only 11 of 87 pairs specialised in taking large birds. It is therefore not surprising that one sees few Brown Falcons in possession of large birds, and it is not unlikely that the present raptor had encountered additional difficulties because it was not used to taking such large birds.

Even allowing that it might have been relatively inexperienced with such prey, I found this an adventurous experiment that might well have ended badly. However, though one may be used to such species as Australian Raven *Corvus coronoides* displaying a degree of road sense while they scavenge on roadkill, one ought not to think of the falcon's behaviour as a sign of incompetence. It is presumably its willingness to make attempts upon ambitious prey, to try out unaccustomed techniques of hunting, and to resist being intimidated by human activity that gives the species its reputation as one that thrives through versatility.

## REFERENCES

- McDonald, P.G., Olsen, P.D. and Baker-Gabb, D.J. (2003). Territory fidelity, reproductive success and prey choice in the brown falcon, *Falco berigora*: a flexible bet-hedger? *Australian Journal of Zoology* **51**: 399-414.
- Olsen, P. (1995). 'Australian Birds of Prey: the Biology and Ecology of Raptors'. (University of NSW Press: Sydney.)