

NOTES ON THE 1991 BREEDING OF SQUARE-TAILED KITES ON THE UPPER MURRAY RIVER IN SOUTH AUSTRALIA.

The Square-tailed Kite *Lophoictinia isura* has a scattered distribution and infrequent occurrence in South Australia (Debus 1991). Records suggest it is a spring migrant to southern Australia but because suitable habitat has been disturbed few remain to attempt breeding (Debus 1991). The only reports of nesting in South Australia are from southern Eyre Peninsula in the 1960s and 1970s (Jolly 1989) and the upper River Murray in 1982 (Fraser 1983).

On 21 September 1991, in the company of David Hackett, I revisited the site in the Upper Murray where Square-tailed Kites attempted to nest in 1982 (Fraser 1983). The nest was recently reconstructed and fresh 'white-wash' droppings on the ground 25 m below indicated recent use. After approximately one hour we had a brief view of the incubating raptor, its white face and rufous neck identifying it as an adult Square-tailed Kite. There was no further activity at the nest during the next hour. In two further visits to the nest site in the following month I observed only one adult bird at the nest.

On 27 November 1991, again with David Hackett, we observed a nestling kite as it excreted from the side of the nest, thus confirming breeding. Shortly after, an adult kite soared overhead and landed on the nest, clutching the nestling of a small passerine in its talons. Despite being held by the head the nestling remained alive, flapping and chirping loudly. The nestling was fed whole to the young kite.

During the following month, both adults fed the young kite in a similar manner. On my arrival on 28 December, the young kite was calling incessantly from the edge of the nest. After two hours an adult arrived, fed it and perched in a nearby gum. Twenty minutes later the young kite flew clumsily across to the branch beside it, enabling a good comparison of plumage. Obvious differences were the more reddish colouration and lack of white face of the adults.

During the development of the young kite, eight regurgitated pellets were collected below the nest and sent to the South Australian Museum for analysis. These comprised mostly grey, white, buff, and blackish feathers, some tinged with yellow,

consistent with those of honeyeaters. One pellet also appeared to contain a bird's crop full of unidentified grass seeds. The crop was possibly that of a Peaceful Dove *Geophaps placida*, Zebra Finch *Poephila guttata*, quail or small parrot.

That the pellets lacked bones suggests that the kites were preying upon nestlings. This concurs with the Cupper and Cupper (1981) observations of Square-tailed Kites nesting in Queensland, where nestlings (most of friarbirds and miners) made up a large part of the diet. Interestingly, Noisy Miners *Manorina melanocephala* and Little Friarbirds *Philemon citreogularis* are common breeding species in the upper River Murray floodplain in South Australia (pers. obs.). Pellets examined from a nest in south-western Western Australia differed in that they contained insects, bones of small mammals and feathers of adult birds (Ferguson and Bonnin 1987).

My observations on the upper River Murray support Cupper and Cupper (1981) and Debus (1991) in that successful breeding of the Square-tailed Kite may be correlated to the availability of nestlings of medium sized passerines as prey. Whether or not the birds reside in the Upper Murray throughout the year, and their food and territory requirements while nesting, require further study.

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