

*Literature Cited*

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**BOOK REVIEWS**

**Hawks in Focus. Jack and Lindsay Cupper. 1981. Jacklin Enterprises, Mildura, Australia. 208 pp, 315 photos, 26 maps. \$29.50 U.S. (obtainable through Jacklin Enterprises, P.O. Box 348, Merbein, Vict. 4505, Australia, plus postage, approx. \$2.00).**

This is a delightfully written book, especially for one familiar with Australia. As I read about the dust storm with fierce hot winds approaching the authors as they photographed from a tower, the all too vivid recollection of my experience in the mallee of Victoria with dust so thick in the air it could be cut, and high winds of temperatures exceeding 100°F, came to my mind. My experience was exciting and I was gripped with nostalgia as I read about theirs. By the same token, the one minor complaint or drawback I found with the book is the sometimes lengthy discussions of the authors' trials, tribulations and experiences, but which really had nothing to do with raptors. It is by design, however, that the authors describe their feelings about their work and their adventures so that the reader may visit all 24 species of diurnal raptors of Australia vicariously. For each species photographs show a normal egg clutch, adults at the nest with young, the adult perched, a bird in flight, and generally a habitat view. In a random sample of 5 species there were on average 13 photographs per species (range 6-20).

Anyone who has tried to climb 20-30 meters up a eucalyptus tree knows how difficult they are to negotiate and accordingly the photos were taken from a blind located on top of a metal tower erected by the nest tree. The only nests not shown to be in trees were one of an Osprey (*Pandion haliaetus*) and one White-Bellied Sea-Eagle (*Haliaeetus leucogaster*) on rocky pinnacles and those of the Marsh Harrier (*Circus aeruginosus*) on the ground. Australia has some incredibly interesting raptors, notable are the Letter-Winged Kite (*Elanus scriptus*) which, along with the Bat Hawk (*Machaerhamphus alcinus*) of Africa and Southeast Asia, is a nocturnally hunting "diurnal" raptor and the Spotted Harrier (*Circus assimilis*), the only tree nesting member of the genus.

The authors made some exciting observations from the blind. They saw an adult breeding Australian Kestrel (*Falco cenchroides*) fly to and feed young Black Falcons (*Falco subniger*) that were giving food begging calls in their nest. This smacks of the observations of Ratcliffe (*British Bird* 56:457, 1962) where kestrels were raised by peregrines (*Falco peregrinus*). They watched a female Brown Falcon (*Falco berigara*) remove one of her dead chicks from a nest just as she did remainders of food not eaten. Removal of uneaten food is an interesting behavior in itself especially if one is familiar with the lack of nest cleaning so common in other large falcons, such as the peregrine, where even dead young remain in their nests if not cannibalized by sibs. Some of their recordings attest to the value of observations from blinds. As further testimony to the value of studies from blinds, I am reminded of a recent conversation with my colleague William Mader where, in checking food remains in nests of a South American hawk, no remains of eels were found (N = 160 remains) but based on observations from a blind at

one of the same nests previously checked, 45% of the food brought in (42% by biomass) were fresh water eels; items totally missed by other means of food studies.

Three of the photographic studies were of particular interest to me. First, photographs of the Grey Falcon (*Falco hypoleucus*), an uncommon falcon of the drier parts of Australia, are the first to have been published showing adults at the nest as far as I can determine. Second is the remarkable documentation of the Black-Breasted Buzzard (*Hamirostra melanosternon*), a type of kite, raising a brood of kestrels. Apparently the buzzards fed on young kestrels and some brought to the nest as food were not killed; as the kestrels gave food begging calls the buzzard responded with stereotypic appropriateness and did so until the young kestrels were grown and fledged. Lastly, is the record of the natural hybrid between two species, the white phase of the Grey Goshawk (*Accipiter novaehollandiae*) and the Brown Goshawk (*Accipiter fasciatus*). Pictures I saw elsewhere of the first adult plumage of the hybrid offspring were not unlike the grey phase of the Grey Goshawk and it is indeed unfortunate the Cuppers did not include a picture of the molted bird in their book. Of interest is that pair was not at the periphery of the range of either species where one might expect hybridization to occur and the pair bond lasted more than one year.

They state that the Brown Falcon was recorded building its own nest. I have heard the same thing from Australian falconophiles but I saw no evidence that unequivocally convinced me that the species does build a nest. If they do, they are the only one of 36 species of *Falco* to do so. Unfortunately the Cuppers were unable to document this on film. Had they, it would have been a significant contribution to our knowledge of this somewhat different *Falco* species and indeed *Falco* in general.

The casualness of not only the humor but the descriptive statements in the book reflects the directness and at the same time subtleness typical of Australians. For example, of the Black Kite (*Milvus migrans*) it was said "unlike most other young birds they did not back to the edge of the nest to defecate. Instead they lowered their head, raised their rear-ends and ejected howitzer-like from the cup of the nest." They vividly described the incredible rapidity that soils in the interior gum up and become slick with the slightest moisture. As they returned from photographing Black Falcons they drove down one wet track where "it looked like a squadron of tanks had been holding maneuvers on it. With more than a modicum of luck, coupled with the expertise acquired through a lifetime of driving on out back tracks we managed to keep mobile most of the time, although we weren't always facing in a homeward direction."

I thoroughly enjoyed the book not only for its readability, but for the biological observations shared. Most of all, are their magnificent photographs. Once having read the book, it is impossible not to grasp the spectrum of opportunity in studying the remarkable array of Australian raptors.

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