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BOOK REVIEW

Kookaburra King of the Bush

Sarah Legge 2004. Australian Natural History Series, CSIRO Publishing \$34.95

Kookaburra King of the Bush is the result of research for her PhD by the author, Sarah Legge. It sets out clearly and in great detail the life cycle of this best-known of Australian birds, the Laughing Kookaburra *Dacelo novaeguineae*. Of the four kookaburra species, three are in New Guinea, which shares one with us, the Blue-winged Kookaburra *D. leacheii*. The other two are the Rufous-bellied *D. gaudichaud* and the Spangled *D. tyro* Kookaburras. Laughing Kookaburras were introduced to New Zealand, Western Australia, Kangaroo Island and Tasmania where, apart from unsubstantiated anecdotal reports, they have not had any adverse effect.

The Blue-winged Kookaburra is mainly a northern bird but territories overlap those of Laughing Kookaburras in Queensland. They do not interbreed. This study deals mainly with Laughing Kookaburras, whose breeding regime appears little different from that of its congener. Both species are hereinafter referred to as kookaburras.

Briefly, kookaburras are sedentary and territorial, needing hollow trees or termite mounds or even a haystack for nesting, sites for perching and enough food to carry them throughout the year. Females are larger than males, and blue on the rump is not a sure indicator of the sex of the bird. Breeding is co-operative and the peak is in September and October. It takes up to 19 weeks from the first egg to eventual independence of the young. Helpers all take turns to incubate, each developing a brood patch to do so, and to feed the young.

Larger group size does not mean greater success but often the contrary, birds eager to incubate or brood crush eggs and nestlings. Females are larger than males and require more food for themselves. They are not such good providers as are male helpers.

None of this is so remarkable but there is much behaviour that is unusual. The poet who wrote 'Little birdies in their nests agree' obviously knew nothing of siblicide, a practice relatively rare in birds apart from raptors [check] but practised by kookaburras, the only known co-operatively breeding bird to do so.

The reason for siblicide is explored in detail with extraordinary results. Simply stated, it amounts to a third egg being laid as insurance in case either of the first two does not hatch. A third chick may compromise the provisioning to the other two so they get rid of it. But

it is much more complex than that. In some mysterious way, not yet unravelled by researchers, the female is able to manipulate the sex of the eggs with the view to successful provisioning of her young by her helpers and their eventual fledging. Neither parent does anything to prevent siblicide which in the long term appears to be necessary for the health of the species.

The book is amply illustrated with figures, tables, b/w photographs and drawings. Excellent colour shots illustrate well the kookaburra's life cycle, especially those showing progress of the growing young in the highly inaccessible nests for all but the intrepid researchers.

I have a few quibbles, mainly editorial. References are given for each chapter but not for which part of the chapter. I remember being castigated for such an omission in one of my books. Nor is there an index to *Kookaburra*, though the contents page does separate the component parts to make for easy reference. There are several omissions in numbering. On page 19 the family tree of the Coraciiformes is not numbered and one has to search for it without an index. A caption would have been welcome for the DNA sequencing on page 54, where the printing is minute and difficult for this reviewer unversed in the mysteries of this technique. Figure 6.2 on page 80 surely refers to mass of food though the legend reads 'food delivered per hour (cm)'. On page 84. The word 'pair' appears with both plural and singular verbs and page 93 begins mid sentence ('as' missing?)

All these minor quibbles aside, this is an excellent book. If you wish to experience the mystery and wonder of the natural world in which this signature Australian bird lives, you won't be disappointed with *Kookaburra, King of the Bush*.

I cannot help reflecting that far too many people worldwide behave like kookaburras. Their behaviour is innate. Our desire for dominance is probably also innate but we have history and comprehension with which we ought to moderate our behaviour but, far too often, don't.

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Aireys Inlet