The next step in life, hatching and growing into adulthood, is explored in Growing up without parental care. Again, much is learnt in this chapter about the fascinating and unique traits of these birds. It includes a description of how, after hatching, the chicks dig their way up through the mound and to the surface; a process observed using an artificial 'digging box' that resembled conditions in a natural mound. With supporting illustrations, the reader gains an understanding of the amazing feats involved, with chicks emerging from mounds probably more than 24 hours after hatching. Then, life on the outside is considered, including the initial movements of individuals after exiting the mound (basically run for your life to the nearest bit of suitable shelter!). Based on radio-tracking studies, the reader learns that individuals may move at least two kilometres per day immediately on exiting the mound. There is a detailed section on chicks recognition and awareness of food resources and potential predators; the ability to recognise potential predators is discussed using findings from a study of captive Australian Brush-turkeys by the author providing one of many examples in this book of the authors reporting on their own research in an informative and understandable way and making it accessible for a wide range of readers.

The social and reproductive behaviour of the species is discussed in the seventh chapter (*Social and reproductive behaviour*). Mating systems and parental care are then covered, much of this being based on Malleefowl research. The influences on megapode mating systems are discussed for each species separately. It is interesting to read the differences between the species. The Australian Brush-turkey male puts great effort into attracting females, which are happy to please any number of males. Conversely, Malleefowl pairings are described as more austere, adopting a more monogamous mating system. This chapter again highlights the distinctiveness of megapodes as a group, but also the distinctiveness of species within the family. The book concludes with the chapter *Conservation and management of Australian mound-builders*. It describes threats such as egg harvesting and hunting, both which are much less common today. Conservation of each of the three species is then considered in turn. The Malleefowl and Australian Brushturkey have been heavily impacted since European settlement through a combination of habitat loss, introduction of predators and threats associated with encroaching urban development. Pleasingly, a number of active conservation measures are mentioned. The final part of this section discusses ways that mound-builders, particularly the Australian Brush-turkey, can be accommodated harmoniously in suburban areas where they occur. Hopefully, through this book many more people become aware and understanding of these unique birds.

As has been a feature of the re-incarnation of the *Australian Natural History Series*, the text in this book is superbly supported by high quality colour photographs. These are complemented by a number of drawn illustrations and a range of summary tables and figures. The editors have done a wonderful job of ensuring that the text is free of the 'nuisance' mistakes that have occurred in other volumes in the series.

The book is thorough and the information is well-presented. It is a very good account of this fascinating group of Australian birds. The authors have done a great job of translating scientific research into a format that will appeal to a wide audience. This book should appeal to those with a general interest in wildlife, including people who may encounter an Australian Brush-turkey in their local neighbourhood and wish to know more; it will also be a valuable addition to the bookshelves of ornithologists.

> Grant Palmer Centre for Environmental Management, School of Science and Engineering University of Ballarat



## **Australian Bustard**

Mark Ziembicki 2010. CSIRO Publishing. Paperback, 102 pp, colour photographs. ISBN 9780643096110. RRP \$39.95.

Here is another opuscule in the Australian Natural History Series from CSIRO Publishing. This one struggles to just over one hundred pages, including a Preface, an Acknowledgements section, a Bibliography, an Index, eight pages of colour plates, and a few blank pages thrown in for good measure.

The book is in eight chapters: Talking turkey, concerning the place of the Bustard in Australian life today; Bustard dreaming, concerning the bird's importance to indigenous people; Taxonomy and characteristics; Status, distribution and habitat; Diet and daily routine; Exploding bustards, concerning the bird's breeding routines; Movements; and Threats and conservation.

The Bustard formerly occupied most of the Australian continent – it was once common in the vicinity of present-day Melbourne – and in spite of its range having contracted, especially from the south-east, it is still very widespread. So it spans many climate zones including the climatically variable arid areas. Perhaps not surprisingly, its ecological responses are also varied.

We learn here that the Australian Bustard is a lekking species, at least in parts of its range. It forms "classical" leks where males display close to and in sight of each other and which are partly defined by the fact that males are not defending any resource valuable to the female other than themselves (or at least their genes). It also forms "exploded" leks where the displaying males may be separated by up to 1–2 kilometres, which may be the explanation for the displaying male's farcarrying call (as we know, one of the most notable things about lyrebirds, which also form exploded leks, is the loud calls of displaying males). (Incidentally, I don't think the reader needs to be told twice, on p. 60 and again on p. 61, that exploded leks may only be detectable if the distribution of the displaying males is mapped over a large scale.) The book suggests that the breeding system of bustards may grade from "classical" leks to "exploded" leks and in some parts of the species range may even be monogamous; such variability may be an adaptation to the variable climate throughout the species' range.

As with the mating system, so the movement patterns of Bustards change across the species' range. In some areas birds are more-or-less sedentary, others may undergo regular migration, while birds in more climatically variable parts of the range may be idiosyncratic or nomadic in their movements. The author describes two methods he used in his studies to shed light on bustard movements: mail surveys of landholders and satellite tracking of marked birds. Both have a role to play with this and no doubt other species, especially as the size of the Bustard allows the attachment of a transmitter powered by a solar panel so that an individual's whereabouts can be followed for up to several years.

The Australian Bustard seems to cope poorly with the presence of Europeans, hence its range contraction in the last two hundred years. It is therefore apt that the conservation of the species is given a chapter of its own. The author seems equivocal about the future of the species and suggests that the conservation of this and other dispersive fauna presents a problem not yet solved. He floats the idea of mobile (in time and space) conservation zones being brought into play to protect the species under varying conditions. I get the impression that much more work is required in this area.

An index is present, which has not been the case for all of this book's predecessors in the same Series, but is perfunctory. "Irruptive movements", a subheading in the text, is not in the index, but is present under "movements"; contrarily, the subheading "movements in relation to fire", is indexed under "fire" but not under "movements". "Display", an important aspect of the Bustard's routine, and prominent in the book, is not indexed at all.

Regrettably, the book has its share of those irritating glitches that should not be as difficult to iron out before publication as their numbers would suggest. As an example of what I would interpret as a lack of care in presentation, there are misspellings, such as "occassionally", which appears on page 89; these things are even highlighted by the software, as was this one when I keyed it in and insisted on the wrong spelling instead of the correction supplied by the machine. Do this author and this publisher not stoop to such aids? It is also worth mentioning that some of the prose here is, shall we say, clumsy, and I would have thought might have attracted the attention of an editor, if such a thing exists anymore.

Nevertheless, and in spite of my complaints, I came away knowing more than I did previously about the Australian Bustard which is, as the author says, a lordly icon of the Australian outback.

> Andrew Ley Birds Australia (Northern NSW) Group Armidale

## **RECOVERY ROUND-UP**

This section is prepared with the co-operation of the Secretary, Australian Bird and Bat Banding Schemes, Australian Nature Conservation Agency. The recoveries are only a selection of the thousands received each year; they are not a complete list and should not be analysed in full or part without prior consent of the banders concerned. Longevity and distance records refer to the ABBBS unless otherwise stated. The distance is the shortest distance in kilometres along the direct line joining the place of banding and recovery; the compass direction refers to the same direct line. (There is no implication regarding the distance flown or the route followed by the bird). Where available ABBBS age codes have been included in the banding data.

Recovery or longevity items may be submitted directly to me whereupon their merits for inclusion will be considered.

Hon. Editor

The following abbreviations appear in this issue:

ABBBS – Australian Bird and Bat Banding Schemes

## Shy Albatross Thalassarche cauta

280-06818. Nestling banded by N.P. Brothers on Albatross Island, Tas. on 27 March 1985. Recovered dead, at Joanna Beach, Great Ocean Road, Vic. on 23 March 2010, over 24 years, 11 months after banding.

(Band returned to Banding Office)

## Black-necked Stork Ephippiorhynchus asiaticus

- 290-08632. Nestling banded by G.P. Clancy at Gilletts Ridge, NSW on 12 Dec. 2007. Readable band/flag sighted in field, number on standard band inferred at:
- (1) Micalo Island, Yamba, NSW on 19 Aug. 2009. 29 km NE.
- (2) Moleville Creek, west of Grafton, NSW on 27 May 2010. 22 km WNW.
- (The bird was also banded with band no. 290-08626.)