

An outstanding new book

Shorebirds: An illustrated behavioural ecology by Jan van de Kam, Bruno Ens, Theunis Piersma and Leo Zwarts (translated from Dutch into English by Petra de Goeij and Suzanne J. Moore). 2004. KNNV Publishers, Utrecht, The Netherlands. 368 pp., hardback, 300 high quality colour photographs, numerous graphs, maps and tables. ISBN: 90 5011 192 0. €49.95 (Can be purchased online from www.knnvuitgeverij.nl)

Quite simply, for members of the International Wader Study Group, this must be among the most valuable, inspiring and enjoyable books about waders that have ever been published. That might sound like hyperbole, but it is justified!

Shorebirds is a very unusual book in that it combines excellent science with brilliant illustration. Although its core is a comprehensive account of shorebird studies along the East Atlantic Flyway with an emphasis on those species that use the Dutch/German/Danish Wadden Sea, its relevance is worldwide. This is partly because the behavioural ecology of all shorebirds is similar, partly because many of the species treated have cos-



mopolitan distributions and partly because the book includes examples from all parts of the world.

The initial stunning - impact of the book is the 300 magnificent colour photographs by Jan van de They Kam. are beautiful. but are no mere por traits, they are studies of waders in action. They add immeasurably to the reader's ability to reach a full understanding of the true nature of these fantastic birds.

Shorebirds began life in 1999 in Dutch as Ecologische atlas van de Nederlandse wadvogels. For non-Dutch readers, it was tantalising to see that edition. But many bought it, just for Jan van de Kam's photographs. The authors always had it in mind to produce an English version, but publishers were reluctant. It was unique and did not fit easily into any established category. Clearly it was excellent science, but did scientists need all those expensive photographs? Conversely, the photographs suggested a mass audience, but would the masses buy a book with all that science? Fortunately, in the end KNNV Publishers, a foundation of the Royal Dutch Society for Natural History, came to the rescue, assisted by financial support from African Eurasian Waterbird Agreement, Alterra Netherlands, RIZA Netherlands, Wetlands International, WWF Germany, WWF Netherlands and the Flemish Institute of Nature Conservation Belgium.

The three main text authors – Bruno Ens, Theunis Piersma and Leo Zwarts – need little introduction. They are all leading members of the International Wader Study Group who have been at the forefront of wader ecological research for more than twenty years. Between them, they are the lead authors of no less than 120 of the thousand papers listed at the end of the book – a formidable team!

In its six chapters *Shorebirds* covers the whole spectrum of wader behavioural ecology. Chapter 1 describes the tidal environment, sediment characteristics and the food available for the birds. Chapter 2 presents a 'portrait gallery', copiously illustrated with photographs and distribution maps, of the 21 wader species and six other important intertidal species found in the Wadden Sea (Great Cormorant, Spoonbill,



Brent Goose, Barnacle Goose, Common Shelduck and Eider Duck) as well as other species that occur regularly in the vicinity (ducks, gulls and terns).

A tour de force, Chapter 3, the migration chapter, covers migration patterns, flight techniques and costs, wind-tunnel experiments, migratory strategies, how moult strategies dovetail with migration, orientation and navigation, the crucial role of stopover sites, energy budgets as well as the evolution of migration.

Chapter 4 on 'food' reflects the leading part that Dutch workers have played in the study of wader feeding ecology. It is all here: prey profitability, size selection, availability, detectability and digestibility, daily food requirement, time budgets, intake rates, digestive constraints, night feeding, the life cycles of benthic prey, feeding density and distribution, robbery, flock feeding, territorial feeding, interference, intraspecific and inter-specific competition as well as the impact of wader predation pressure on benthic communities.

Chapter 5 covers the whole ambit of reproduction based mainly on studies in the Netherlands and the arctic. It starts by firmly laying out the underlying theory and emphasising the value of long-term studies of individually marked birds. It then goes on to consider mate choice, display, costs of reproduction, clutch size, egg predation, incubation, hatching, raising young, when to breed, where to breed, breeding habitat, competition, reproductive strategies and mating systems.

The last chapter looks to the future, emphasising the need to reach a better understanding of population processes, the value of modelling techniques, the effects on populations of conditions on the breeding and wintering grounds and the need to understand and regulate human-related effects, including habitat loss, disturbance, pollution and shell-fish harvesting. Finally the authors make an almost impassioned plea for more in-depth and especially independent research. They conclude: "Good research must do more than underpin sound management, it has to ensure that the waterbirds continue to capture our imagination and touch our hearts". That is an aim that *Shorebirds* amply fulfils all by itself!

I have just one criticism of this book and it is heartfelt: why could the authors not have produced it twelve years ago when I started the tedious task of background reading for my Ph.D. thesis? What a difference that would have made! I feel quite jealous of any wader ecology students just starting out: here they have it on a plate!

It is clear from the long list of acknowledgements that Shorebirds was very much a team effort. Plainly the translators, Petra de Goeij and Suzanne Moore, have done an excellent job and the text makes easy reading. Moreover Dick Visser's graphics are lucid, imaginative and quite delightful.

Like any science book, *Shorebirds* will eventually become out of date. When that happens we will all hope that these authors will be able to produce a new edition and that a publisher will once again be prepared to make the investment. The only way to ensure that that happens is to help make this edition the success it deserves to be. Go out and buy it!

Humphrey Sitters



This photo from page 115 of Shorebirds shows a Red Knot incubating eggs on the Siberian tundra after a snowstorm in July.

