

PIERSMA, T. & DAVIDSON, N.C. (Eds.) 1992. The Migration of Knots. Supplement to *Wader Study Group Bulletin* 64.

The Migration of Knots is a collection of 28 papers on a charismatic species of wader. Knots *Calidris canutus* have captivated the imaginations and the research efforts of scientists worldwide, with Theunis Piersma of The Netherlands and Nick Davidson of the U.K., the editors of this 209 page supplement to the *Wader Study Group Bulletin*, being two of the most enthusiastic of all. Much of this interest was sparked off by the most cited paper in the collection, Dick *et al.* (1976), of which SAFRING ringer Manfred Waltner was a co-author.

It is not hard to understand why so much attention has been paid to the Knot. Issues of subspeciation are still not fully resolved – a new subspecies was recognized in 1990 (see Fig.1). The bird has a circumpolar breeding distribution in the arctic tundra as far north as Ellesmere Island in arctic Canada, only 800 km from the north pole (83°N). The non-breeding distribution range extends latitudinally from a little south of the arctic circle in the north to Tierra del Fuego (55°S) in the south. So the January experiences of Knots vary greatly, from chilly west European estuaries, through tropical Mauritanian mudflats, to warm Langebaan Lagoon. An understanding of the interactions between breeding and non-breeding areas, staging areas and migration distances involves, besides ornithology, the "integration of the disciplines of physiology, nutrition, behaviour, meteorology, radar, aerodynamics and many others" (from William Dick's forward). Some of the other disciplines to the fore in the book include molecular genetics (Allan Baker) and trace element chemistry

(Lida Goede).

Most of the papers were originally presented at a Wader Study Group workshop in 1989. These papers have been brought up to date in the two and half years between the workshop and publication. The editors have also included papers from scientists who were not present at the workshop, and have succeeded in producing an overview of what is currently known about Knots. Best of all, the editors have written two synthesis papers, so the book does not end up as a hotchpotch of disjointed contributions (as is true of the proceedings of many meetings!). One paper overviews the migrations and annual cycles of the five subspecies of Knots, putting the new information into perspective, highlighting areas where we still lack knowledge, and putting forward ideas for further investigations. Another paper considers the conservation needs of Knots. The authors state that the migrations undertaken by Knots are one of the spectacular wonders of the biological world, and therefore worth conserving. The key to Knot conservation is the establishment of a network of flyway reserves, covering breeding, non-breeding and staging areas, some of which may only be used by Knots for a few weeks on northward or southward migration, but which are vital stepping stones to the survival of the species.

The book is brilliantly illustrated with photographs by that most remarkable of Dutch bird photographers, Jan van de Kam. The photograph on page 25 is my personal favourite – I stared at it for some time before I realized that there was a Knot in the picture! It is not surprising that the first Knot nest was only found in 1886.

The links between breeding, staging and

non-breeding areas shown in Figure 1 were established by the efforts of ringers, mostly during the last 20 years. There are still many puzzles; for example, the Russian ornithologist Pavel Tomkovich raises fresh doubts in his paper about the breeding area of the Knots that spend the northern winter in the South African summer. So ringers of the Western Cape Wader Study Group (and all other wader ringers!), the Knots you catch might include the one that establishes the first proof of the breeding areas of "our" Knots.

The Migration of Knots is available from the Wader Study Group, P O Box 247, Tring, Herts, HP23 5SN, U.K. for

15 pounds sterling. If you join the Wader Study Group, which costs 18 pounds per year, you get four issues of the *Wader Study Group Bulletin* each year, plus any supplements that are issued (currently one or more per year).

REFERENCES

- DICK, W.J.A., PIENKOWSKI, M.W., WALTNER, M. & MINTON, C.D.T. 1976. Distribution and geographical origins of Knot *Calidris canutus* wintering in Europe and Africa. *Ardea* 64: 22-47.
 PIERSMA, T. & DAVIDSON, N.C. 1992. The migrations and annual cycles of five subspecies of Knots in perspective. *Wader Study Group Bull.* 64, Suppl. 187-197.

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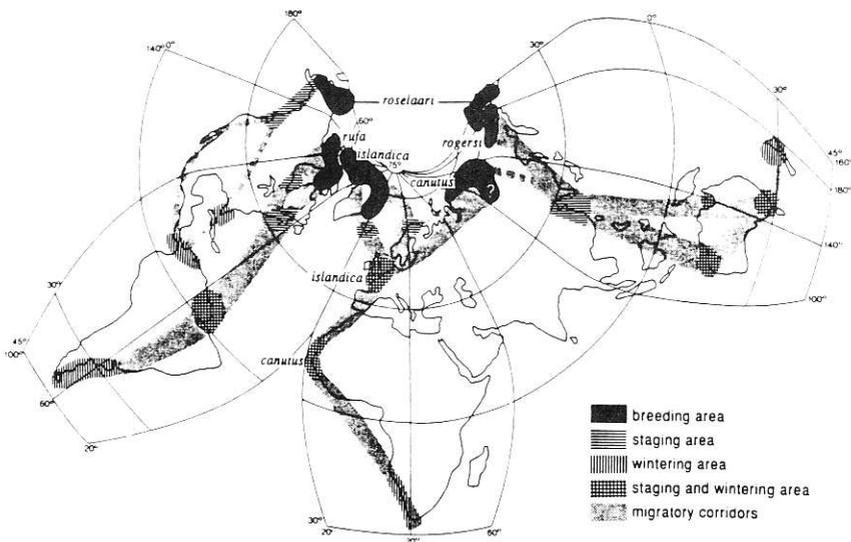


FIGURE 1 : THE DISTRIBUTION AND MIGRATION PATTERN OF KNOTS

This map encapsulates much new information published in the *Migration of Knots*. The shaded migratory corridors are proven by ringing recoveries, the broken shaded corridors are suggestions from the literature. There have been no recoveries of South African-ringed Knots from the breeding grounds, the nearest recovery is from the White Sea region in northwestern Russia. (Reproduced from Figure 3 of Piersma and Davidson 1992, with permission).