

REVIEWS

UNEP/CMS (ed.) 1999. *Proceedings of the CMS Symposium on Animal Migration (Gland, Switzerland, 13 April 1997)*. CMS Technical Series Publication No.2, Bonn/The Hague. 106 pp.

The Convention on the Conservation of Migratory Species of Wild Animals (also known as CMS or Bonn Convention) aims to conserve terrestrial, marine and avian migratory species throughout their range. It is one of a small number of inter-governmental treaties concerned with the conservation of wildlife and wildlife habitats on a global scale. Since the Convention came into force on 1 November 1983, its membership has grown steadily to include 62 Parties from Africa, Central and South America, Asia, Europe and Oceania.

This report is the second of a new technical series produced by the Secretariat of the Bonn Convention. The symposium was held in 1997, and has resulted in a valuable range of papers dealing with migration in river systems, non-avian migrations of terrestrial species, bird migration, and migration in marine species.

Two articles will be of particular interest to wader biologists. The first, by Bruno Bruderer, deals with long-term and short-term effects of ecological conditions on the course of migration routes in Europe. This provides a well-illustrated overview of bird migration studies in southern Europe and the Middle East. There are interesting observations on regional variations in densities and directions of migration related to topographical features, which are probably heavily influenced by wind. The paper ends with a suggestion that the western and eastern edges of the Mediterranean are of particular importance (com-

pared with the central parts of the Mediterranean and the Sahara), not least because of their higher densities of nocturnally migrating birds. It is suggested that these areas should therefore have high priority in conservation efforts.

The other ornithological paper, by Hany Tatwany, deals with the effects of oil pollution on migrating and breeding waterbirds. This focuses on quantitative studies in the Arabian Gulf, and contrasts numbers in coastal areas where extensive amounts of oil were released during January 1991 (during the so-called Gulf War), with other parts of the coast. The paper draws on earlier documentation by Leo Zwarts and colleagues. In the immediate aftermath of the Gulf War oil spill, virtually all waders disappeared from the oiled coastline, and a substantial number of those remaining were oil-fouled. However, it would appear that most of the waders dispersed from the oiled zone rather than died. More recent observations indicate that numbers of waders are recovering on the previously oiled coast. As such, this is a useful account of the impacts of a major oil spillage on waders. The added interest here is that the paper also looks at wintering and breeding seabirds.

All in all, this is a valuable, well-rounded and well-produced symposium volume. The Bonn Convention provides an important forum for improving conservation measures for migratory species. I find it particularly interesting to see how policy, management and research vary in addressing the plight of migratory species across terrestrial, freshwater and maritime ecosystems.

D.B.A. Thompson

Mud, mud, glorious mud!

Pepping, M., Piersma, T., Pearson, G. & Lavaleye, M. 1999. *Intertidal sediments and benthic animals of Roebuck Bay, Western Australia. Report of the ROEBuck Bay Intertidal benthic Mapping programme, June 1997 (ROEBIM-97)*. NIOZ-Report 1999-3. Netherlands Institute for Sea Research (NIOZ), Western Australian Department of Conservation and Land Management (CALM), Curtin University of Technology, Perth, Western Australia. ISSN 0923-3210.

Copies of the report are freely available from NIOZ, PO Box 59, 1790 AB Den Burg, Texel, The Netherlands [http://iws.nioz.nl/]

Roebuck Bay is in tropical northwest Australia and extends southwards from Broome. Its margins are distinguished by red pindan soils, in places forming cliffs around the bay, and fringing mangroves, but it is the inter-tidal mudflats that are particularly attractive to the 150,000 shorebirds of many species that congregate here during the non-breeding season, especially during their northward migration.

ROEBIM-97 was a joint Dutch/Australian expedition that undertook sampling of approximately one quarter of the intertidal area to investigate how Roebuck Bay can support so many shorebirds. Benthos and sediment cores were taken from a grid of over 500 sampling stations across the northern shore. The intensive sampling was carried out by approximately 30 volunteers over 12 successive days. A two-person hovercraft was used to sample from outlying sites. Samples were sieved on site and returned to the laboratory at Broome Bird Observatory for identification and measurements.



The “mudders” certainly earned their keep, undertaking the often arduous work in glutinous mud – or at least that’s what they’d have us believe in their efforts to convince us that it was really hard work!

This fascinating publication is a highly readable hybrid of scientific papers and ‘expedition report’ — documenting the ups and downs of the expedition, from the specially designed mudsled that was pronounced to be “an utter failure” to “hot botts” caused by the hovercraft exhaust (see report (or Theunis) for further details)!

The report contains an interesting overview of the ecology of the tropical benthos, especially that of sandy beaches, mud- and sand-flats, including a comparison of Roebuck Bay with other tropical intertidal areas around the world. Roebuck Bay is affected by the southward-flowing, warm Leeuwin Current, and the tidal range is one of the world’s largest at over 9 m. Primary productivity is low and it is a generally low-energy system, except for rare storm floods. The expedition found an impressive diversity, identifying about 200 taxa, with more to be identified including some species new to science. Polychaetes contributed most to invertebrate abundance and accounted for just under 50% of the biomass. Bivalves, crustaceans, brittle stars and gastropods, at much lower frequency, were the next most abundant groups, although brittle stars contributed little to the biomass.

In October 1997, the distribution of feeding shorebirds was mapped at low tide and compared with the mapped benthos. Distributional relationships were highly coincident for some shorebirds and presumed prey, but less so for species that mainly follow the tide edge. Aspects of predator and prey behaviour require further investigation in this system.

The study is probably the first extensive survey of the benthos of a tropical inter-tidal system, and there is much valuable information that would help others planning similar studies.

It is a pity that there are quite a few typos and some inconsistencies between authors of different chapters, e.g. the quoted area of mudflat varies between 150 km² and 190 km². Nonetheless, the report is a very useful reference source and contains much interesting material. It is also a good and easy read, benefiting from many excellent photographs which give a clear impression of the bay and the trials of working on (and in) it. It is a shame, however, that the concluding group photograph does not identify the expedition participants!

Rowena Langston

Duckworth, J.W., Slater, R.E. & Khounboline, K. (compilers) 1999. *Wildlife in Lao PDR. 1999 Status report*. Vientiane: IUCN-The World Conservation Union/ Wildlife Conservation Society/ Centre for Protected Areas and Watershed Management. 275 pp. ISBN 2-8317-0483-9.

Available from: IUCN, PO Box 4340, Vientiane, Lao PDR.

This attractively produced volume summarises the status of the fauna of a country little known to most of us. It has been published jointly by IUCN, and relevant governmental and non-governmental organisations within Lao PDR, and financially supported by the German Federal Ministry for Economic Co-operation and Development. It updates the first status report of wildlife in Lao PDR, published in 1993. Since that time, much additional data and information has been gathered, and the current report provides an invaluable and comprehensive overview for anyone interested in

natural history or conservation of Lao PDR.

An introductory chapter presents an overview of the country, its natural and human geography. It concentrates especially on the human use of wildlife and the current status of conservation in the country.

The main part of the publication comprises a series of chapters summarising, to species level, current knowledge of the vertebrate fauna. The status of all species in Lao are assessed against national threat criteria broadly analogous to global IUCN criteria.

Many colour photographs illustrate the main habitats of this stunningly beautiful country, aspects of wildlife trade and utilisation, as well as a small selection of significant species.

Information on waders is collated in brief species accounts. Those recorded as either breeders or visitors include *Scolopax rusticola*, *Gallinago nemoricola*, *G. stenura*, *G. megala*, *G. gallinago*, *Numenius arquata*, *Tringa erythropus*, *T. totanus*, *T. stagnatilis*, *T. nebularia*, *T. ochropus*, *T. glareola*, *Xenus cinereus*, *Actitis hypoleucos*, *Calidris alba*, *C. ruficollis*, *C. temminckii*, *C. subminuta*, *C. alpina*, *C. ferruginea*, *Philomachus pugnax*, *Phalaropus lobatus*, *Rostratula benghalensis*, *Burhinus oedicephalus*, *Esacus recurvirostris*, *Himantopus himantopus*, *Pluvialis fulva*, *P. squatarola*, *Charadrius placidus*, *C. dubius*, *C. alexandrinus*, *C. mongolus*, *C. leschenaultii*, *Vanellus vanellus*, *V. duvaucelii*, *V. cinereus*, *V. indicus*, *Glareola maldivarum* and *G. lactea*.

Of these, *Gallinago nemoricola*, *Burhinus oedicephalus*, *Esacus recurvirostris*, *Charadrius placidus*, *Vanellus duvaucelii*, *V. cinereus* and *Glareola lactea* are highlighted as of special conservation significance in Lao PDR.



Waders At Risk in Lao PDR (roughly equivalent at national level to IUCN Globally Threatened status) are assessed as: *Esacus recurvirostris* and *Vanellus duvaucelii*. Those species Potentially At Risk in Lao PDR (equivalent of Globally Near-Threatened) are *Vanellus cinereus* and *Glareola lactea*, whilst *Gallinago nemoricola*, *Burhinus oedicephalus* and *Charadrius placidus* are categorised as Little Known in Lao (equivalent of Data Deficient).

An eight-point conservation management and research plan is given which outlines important needs for waders. A major issue for several of the key species above is the identification and conservation management of important areas for sandbar nesting waders (especially *Esacus recurvirostris*, *Vanellus duvaucelii*, *V. cinereus* and *Glareola lactea*. These occur along the sandbars and ephemeral islands of the major river systems (especially the Mekong) and are threatened by disturbance close to settled areas. It is not known where these species go in the wet season when high water-levels submerge the sand-bars and accordingly surveys are recommended at this time of year.

As for all other vertebrate species, hunting and trade are significant for waders and the authors recommend surveys of the autumn harvest of migrating waders, especially along the Mekong so as to develop appropriate control measures. This is foreseen through major education campaigns addressed at local communities. The introductory chapters outline some of the notable successes already achieved to this end. The lack of Lao-language conservation and wildlife literature is clearly a significant issue.

All involved in this publication are to be congratulated for compiling so much information in such an accessible and attractive format. It will be the keystone for conservation in Lao

PDR for many years to come.

David Stroud

Dodman, T., Béibro, H.Y., Hubert, E. & Williams, E. 1999. African Waterbird Census 1998. Les Dénombrements d'Oiseaux d'Eau en Afrique, 1998. Wetlands International, Dakar, Senegal. 296 pp. ISBN 1 900442 23.x.

Available from: The Natural History Book Service (NHBS), 2-3 Wills Road, Totnes, Devon TQ9 5XN, UK. E-mail: nhbs@nhbs.co.uk.

The African Waterbird Census (AfWC) goes from strength to strength judging by the scope and size of this most recent annual report. This publication comprises reports and overviews of wetland surveys and waterbird counts undertaken between April 1997 and March 1998, centred on the key months of July 1997 and January 1998. It is the eighth annual AfWC report and is presented in both English and French.

The report is structured around five sub-regional sections, summarising waterbird survey data collected in each region, and listing potential Ramsar sites of international importance for waterbirds.

There is a discussion of the results collected for each region, with a concluding section providing additional information on the AfWC, as well as updates on the activity of Ramsar and other conventions, as well as Wetland International's Specialist Groups and partner organisations.

The coverage achieved by the AfWC is impressive: 30 countries participated, including Gabon once again, and Congo for the first time. There was virtually continuous coverage in west Africa from Mauritania to Congo, and from Eritrea in north-east Africa, to down

to South Africa. There remain large gaps in the northern Arabic-speaking countries and in central Africa.

The report notes the establishment of a Steering Committee to guide the development of the AfWC. This met for the first time in November 1998, and the Committee has initiated the development of a training manual for the AfWC. It is also notable that the annual report is the first to be produced in Africa itself, at Wetlands International's newly established Dakar office.

The report is a veritable mine of useful information, including for example, a complete list of all the national AfWC co-ordinators, as well as summaries of the conclusions of the Pan-African Regional Ramsar meeting in Uganda in July 1998, and the 2nd International Conference on Wetlands and Development in Senegal in November 1998.

For anyone with an interest in waterbird monitoring in Africa it will provide a definitive update on current census activity.

David Stroud

Further information on the African Waterbird Census is available from: Wetlands International, West Africa Programme, 407 Cité Djily Mbaye, BP 8060, DAKAR-YOFF, Sénégal. E-mail: wetlands@telecomplus.sn

Poole, A., Pienkowski, M.W., McCracken, D.I., Petretti, F., Brédy, C. & Deffeyes, C. (eds.) 1998. Mountain livestock farming and EU policy development. Proceedings of the Fifth European Forum on Nature Conservation and Pastoralism, 18-21 September 1996, Cogne, Valle d'Aosta, Italy. European Forum on Nature Conservation and Pastoralism, Islay, Scotland. 199 pp. {£20}.

Pienkowski, M.W. & Jones, D.G.L. (eds.) 1999. Managing high-



nature conservation-value farmland: policies, processes and practices. Proceedings of the Sixth European Forum on Nature Conservation and Pastoralism, 6-10 June 1998, Luhacovice, Bile Karpaty, Czech Republic. European Forum on Nature Conservation and Pastoralism, Islay, Scotland. 176 pp. {£20}.

Available from: European Forum on Nature Conservation and Pastoralism (contact details below).

Bulletin 75 noted the close linkages being developed between the WSG and the European Forum on Nature Conservation and Pastoralism (EFNCP). The EFNCP aims to increase understanding of those European farming systems which are of high nature conservation and cultural value, and to develop and promote policy options that ensure the ecological maintenance and development of such farming systems and cultural landscapes.

Bulletin 80 reprinted two papers from the fourth EFNCP proceedings. These two volumes present papers given at the fifth and sixth proceedings held in Italy and the Czech Republic respectively. There are few contributions whose sole focus is ornithological ecology. Much in these volumes, however, will be of great interest to those seeking to understand the root causes of the unsustainable farming systems encouraged by the Common Agricultural Policy. These processes are the very basis of the negative trends shown by many European breeding waders, especially those of traditionally farmed landscapes.

The fifth proceedings focuses on the particular circumstances of mountain livestock farming and contains sections on the ecology of mountain pastures and meadows, mountain livestock systems, and the integration of agriculture, environment and social issues. It also gives a local focus on the Valle d'Aosta — the

conference location in northern Italy.

The proceedings of the sixth conference contains perhaps more that will be of immediate interest to wader conservationists. The content of the volume is maybe best summarised by the headings of the main sections (each of which contains about 6-8 papers):

- How much do we know and what do we still need to investigate about the detailed ecological relationships between livestock management practices and wildlife value?
- What management practices are required to maintain the wildlife value of low intensity farming systems?
- How useful have agri-environment schemes been in delivering and maintaining environmental aims and objectives?
- Future challenges and opportunities for existing European Union countries and for Central and Eastern European countries.

The latter was an important theme of the conference given the conservation risks facing the countries of Central and Eastern Europe in their potential accession to the European Union. David Baldock's contribution in particular, provides a useful summary of the implications of the EU's Agenda 2000 proposals for agriculture and environment policies in this area, whilst Hannah Bartram and colleagues outline proposals for pre-accession agri-environment schemes in central and eastern European countries (based on an approach in which biodiversity conservation is central).

Contributions came from many European countries including England, Scotland, Czech Republic, Finland, Estonia, The Netherlands, Poland, Germany, Austria, Ireland, Spain, Belgium and Hungary.

The report also summarises the conclusions of four workshops held

on different aspects of the conference theme, and which synthesised important conclusions drawing from the very wide range of expertise present.

Of particular note is the text of the first Colin Tubbs Memorial Lecture given by Roy Dennis (The importance of extensive livestock grazing for woodland biodiversity: traditional cattle in the Scottish Highlands; pp. 26-41). In the years before his untimely death in 1997, Colin had done much to raise the profile of traditional pastoral agriculture and its fundamental importance to the conservation of much of Europe's wildlife.

This volume will be of particular interest to those involved in the study and conservation of waders breeding (and wintering) in lowland wet grasslands in particular.

David Stroud

Further information on the European Forum on Nature Conservation and Pastoralism is available from: EFNCP, 102 Broadway, Peterborough PE1 4DG, UK. E-mail: Info@efncp.org web: <http://www.efncp.org>

Kamp, J. van der & Diallo, M. 1999. *Suivi écologique du Delta Intérieur du Niger: les oiseaux d'eau comme bio-indicateurs. Recensements crue 1998-1999. Mali-PIN publication 99-02. Wetlands International, Sévaré (Mali)/Altenburg & Wymenga, Veenwouden (The Netherlands). 63 pp. {In French with English summary}*

Available from: The Natural History Book Service (NHBS), 2-3 Wills Road, Totnes, Devon TQ9 5XN, UK. E-mail: nhbs@nhbs.co.uk

A collaborative project between the Malian government and Wetlands International (supported with funding from the Dutch government)



has been running since 1998 to provide relevant ecological hydrological and socio-economic data to aid the integrated and sustainable management of the Inner Niger Delta.

This short report summarises the initial results of fieldwork during the first complete flood-cycle (1998-1999) that has been studied. The study area is a central part of the Inner Niger Delta and is a complex of two lakes — Lac Debo and Walado Debo (part of a Ramsar site of 103,100 ha).

The report presents the result of the monthly Debo waterbird counts and relates numbers to flood volume and water levels.

The main part of the report consists of short species accounts for the principle species encountered. There are short accounts (of varying length) for the following waders: *Rostratula benghalensis*, *Himantopus himantopus*, *Recurvirostra avosetta*, *Burhinus senegalensis*, *Pluvianus aegyptius*, *Glaerola pratincola*, *Glareola cinerea*, *Vanellus spinosus*, *V. tectus*, *V. albiceps*, *V. senegallus*, *Pluvialis squatarola*, *Charadrius hiaticula*, *C. dubius*, *C. marginatus*, *C. alexandrinus*, *C. marginatus*, *Limosa limosa*, *L. lapponica*, *Numenius arquata*, *Tringa erythropus*, *T. totanus*, *T. stagnatilis*, *T. nebularia*, *T. ochropus*, *T. glareola*, *T. hypoleucos*, *Arenaria interpres*, *Gallinago media*, *G. gallinago*, *Calidris alba*, *C. minuta*, *C. temminckii*, *C. alpina*, *C. ferruginea* and *Philomachus pugnax*.

In addition to information on waterbirds, the surveys have highlighted the huge importance of this area for wetland passerines, including several hundreds of thousands of Sand Martins *Riparia riparia* as well as 200,000 Yellow Wagtails *Motacilla flava* ssp.

The study is due to continue to 2001, with the possibility of further work after that. The results gained so far are already a huge advance in our understanding of this wetland of major regional importance for waders and many other waterbirds. We await future data and analysis with anticipation!

David Stroud

Skagen, S.K., Sharpe, P.B., Waltermire, R.G. & Dillon, M.B. 1999. Biogeographical profiles of shorebird migration in mid-continental North America. U.S. Geological profiled survey biological science report USGS/BRD/BSR 2000-2003. U.S. Government Printing Office, Denver, Colorado. 167pp.

Available for purchase from the National Technical Information Service, 5,285 Port Royal Road, Springfield, VA22161, USA.

‘This report presents general distribution patterns of en route migrants that refuel in interior wetlands (of the USA) during migration. We (the authors) provide information on the spatial and temporal occurrence and habitat requirements for (37) individual species and groups of species with the intent that this information is used in guiding management efforts.... The results of this project can be viewed on the Internet via...<http://www.mesc.usgs.gov/shorebirds/>’.

This is an ambitious project, as will be clear from the authors’ intentions, quoted above. The extensive data have been analysed carefully so that summaries for each species can be presented on a two-page spread. One page shows two maps of the extent of use of 10 x 10 km squares during the periods January-June (late winter and spring migration) and July-December (fall migration and early winter). The other page

summarises the number of birds counted (at inland sites) in 5° bands of latitude, between 25° and 55°N, in each month of the year, thereby highlighting the time-course of migration northwards and then southwards, and it also includes a map of the northern and southern halves of the American continent, indicating breeding and wintering ranges. Finally, brief details are given for each species of body size, foraging guild, foraging habitat, migration distance, migration pattern (narrow band, widespread jumps or crossband), dispersion and a list of six sites with the highest counts.

In addition, two-page spreads are given grouping the data for all shorebirds, three categories of migrants (long, intermediate and short-distance), all plovers, small and medium sandpipers, and all shorebirds of three size categories (small, medium and large). The presentations are impressive examples of clarity and conciseness whilst retaining a high information content. Some preliminary interpretations are given of the spring migration of the genus *Calidris*, but clearly there is a mine of information on other species which awaits more detailed consideration.

Perhaps similar reports could be attempted on the migrations of shorebirds along the other major flyways? The American team have certainly shown what can be done, in a most effective way.

P.R. Evans

