

PREFACE

PETER H. BECKER

Institut für Vogelforschung "Vogelwarte Helgoland", An der Vogelwarte 21, D-26386
Wilhelmshaven, Germany; E-mail: peter.becker@ifv.terramare.de

Reproduction is the bottleneck in the life of seabirds, and the constraints obtained during their breeding periods determine their life styles. The energetic demands of breeders are extremely high in consequence of increased resource allocations to supply mates, to produce eggs and to provide for young. This incurs costs and puts high selection pressures on individuals, which is the mainspring behind the evolution of the fascinating life histories of marine birds. Seabird life is characterised by colonial breeding, highly developed social and antipredator behaviour, by extreme foraging strategies, long life and low reproductive output, by sexually divergent parental roles in brood care, and by the specific importance of individual quality and experience.

As "Seabird Reproduction" had not yet been covered as a main topic by earlier Seabird Group Conferences, it was chosen as the main theme of the Seventh International Seabird Group Conference held from 17 to 19 March 2000 in Wilhelmshaven, on the occasion of the EXPO-by-the-Sea, the maritime section of the EXPO 2000 in Hannover. This, the first conference of its kind to be held outside the United Kingdom, was hosted by the Institut für Vogelforschung "Vogelwarte Helgoland", which was founded in 1910 on the island of Heligoland and is one of the oldest and largest ornithological research institutes in the world with a major focus on seabirds. The conference took place in the Wilhelmshaven Stadthalle, where 142 delegates from 16 countries were welcomed by the Local Organising Committee. The Deutsche Forschungsgemeinschaft proved very generous in its support for the participation of seabird biologists from eastern countries. A detailed report on the course of the meeting, its events, atmosphere and success has been presented by Heubeck (2000).

The scientific programme (Tasker 2000, Heubeck 2000) comprised 36 oral and 33 poster presentations of high quality giving insight into reproduction and other aspects of seabird life, and covering a wide spectrum of species and marine areas all over the world. Species-specific or individual-specific reproduction strategies aimed at increasing fitness were the focus of the programme, arranged by the scientific programme committee Peter H. Becker, Kees Camphuysen and Mark Tasker under five main headings: (a) reproductive strategies and parental condition; (b) reproduction and population ecology; (c)

breeding ecology of southern hemisphere seabirds; (d) reproductive success, and (e) food provisioning and foraging.

Two notable keynote talks were presented by Ian L. Jones, St. John's, Canada on "Life history implications of mate choice, mating success and sexual selection in seabirds", and by Pat Monaghan, Glasgow, United Kingdom on "Resource allocation and life history trade-offs in seabirds". The programme reflected the wide diversity of the research that is currently being carried out on marine birds, and the rapid progress that has been made in recent years through the use of new laboratory and field techniques. With most, if not all, marine environments currently threatened by a wide range of anthropogenic activities, the need for research on seabirds has never been greater.

Seabird Group Conferences are well respected for their scientific reputation and for the high quality of contributions. It comes as no surprise, therefore, that just one year after the conference many of the papers given have already been published and can be found spread over the various ecological and ornithological journals. For this reason we have not been able to prepare complete conference proceedings, such as in the last conference co-organised by the Seabird Group and ICES (Reid 1997). We have seized the chance, however, to publish a selection of papers in this special issue of *Atlantic Seabirds*, issuing from the conference in Wilhelmshaven above and beyond the Abstract Booklet available (Tasker 2000). The generosity of the sponsors of the conference, especially of the main supporters of this special issue, the organisations "Bürger für Wilhelmshaven" and the "Gerd-Möller-Stiftung", have made possible this much appreciated service both to the participants of the meeting and to the members of the Seabird Group and the Dutch Seabird Group, whose official journal *Atlantic Seabirds* is.

The present special issue contains five selected papers presented at the 7th International Seabird Group Conference which reflect the main themes of the conference programme.

Bernard Cadiou reports on the great interannual variation in the timing of breeding and the reproductive success of European Storm-petrels *Hydrobates pelagicus* in Brittany, which was probably due to changing food availability and has implications for census timing. Ingveig Langseth, Børge Moe and Claus Bech address the question of whether reductions in body mass and basal metabolic rate in Black-legged Kittiwakes *Rissa tridactyla* during chick rearing may be an adaptation aimed at reducing maintenance costs in favour of investing more energy in chick growth. The return rates of subadult Common Terns *Sterna hirundo* to their natal colony are not affected by parameters of the individuals' chick period such as hatching position or number of fledged siblings, as Tobias Dittmann, Jan-Dieter Ludwigs and Peter H. Becker show, using new techniques to record breeders and non-breeders remotely and

automatically at the colony site. Bill Bourne and Ken Simmons present long-term data on population changes in seabirds breeding on the island of Ascension in the tropical Atlantic Ocean and on their distribution at sea, which may be linked with weather and oceanographic fluctuations such as the El Niño/Southern Oscillation, a problem complex which is bound to attract more attention in the future. In the final paper, Thorsten Krüger and Stefan Garthe focus on flight altitudes of seabirds migrating along the southern North Sea coast in relation to wind direction and speed; the results recorded by sea-watching are relevant to the current discussions on offshore windmill farms.

VOORWOORD

De zevende internationale Seabird Group Conferentie van 17 t/m 19 maart 2000 in Wilhelmshaven had zeevogelreproductie als hoofdthema. Het wetenschappelijk programma bestond uit 36 modnelinge en 33 poster presentaties, verdeeld over vijf subthema's: a) reproductiestrategieën en ouderkwaliteit; b) reproductie en populatiebiologie; c) broedbiologie van zeevogels van het Zuidelijk Halfrond; d) broedsucces en e) voedselvoorziening en foerageren. Hoewel het slechts een jaar na de conferentie is, zijn diverse artikelen al gepubliceerd in verschillende tijdschriften. Daarom kunnen geen volledige "proceedings" worden gemaakt, maar wordt, naast het boekje met Abstracts van alle presentaties (Tasker 2000), een selectie van artikelen in deze special van *Atlantic Seabirds* gepresenteerd.

ACKNOWLEDGMENTS

The editor is pleased to acknowledge the expert and efforts of the following referees to this special issue of *Atlantic Seabirds*: Mark Bolton, Monika Bukacinska, Dariusz Bukacinski, Kees Camphuysen, David Duffy, Jan Durinck, Eric Stienen, Robert W. Furness, Ommo Hüppop, Ellen Kalmbach, Ian C.T. Nisbet, Norman Ratcliffe, and Arie Spaans. James B. Reid and Ken Wilson checked the English. Steve Geelhoed made the final efforts to realize this special.

REFERENCES

- Heubeck M. 2000. 7th International Seabird Group Conference, Wilhelmshaven, Germany, 17-19th March 2000. The Seabird Group Newsletter 85: 1 – 5.
- Reid J.B. (ed) 1997. Seabirds in the Marine Environment. Proceedings of an ICES International Symposium, Glasgow 1996. ICES J. Marine Science 54: 503 – 739.
- Tasker M. (ed) 2000. 7th International Seabird Group Conference "Seabird Reproduction": Programme and Abstracts. Institut für Vogelforschung, Wilhelmshaven.

This Special Issue of *Atlantic Seabirds* was edited by guest editor Peter H. Becker.

**The 7th International Seabird Group Conference, Wilhelmshaven 2000,
was supported by:**

- Bürger für Wilhelmshaven
- Deutsche Forschungsgemeinschaft, Bonn
- Wilhelmshaven-Projekt-GmbH
- Stiftung Kulturkreis Wilhelmshaven-Friesland
- Franz-Kuhlmann-Stiftung, Wilhelmshaven
- Gerd-Möller-Stiftung, Wilhelmshaven
- Sparkasse Wilhelmshaven
- Oldenburgische Landschaft, Oldenburg
- Friesisches Brauhaus zu Jever
- Jacques' Weindepot, Oldenburg
- Friesische Gastlichkeit, Jever
- Joint Nature Conservation Committee, Aberdeen
- The Seabird Group, Thetford
- Institut für Vogelforschung „Vogelwarte Helgoland“, Wilhelmshaven