

LIVING WITH SEABIRDS

Nelson, J.B. 1986. Edinburgh: Edinburgh University Press. 253 pp., numerous black and white photographs. Price £12.95. ISBN 0 85224 523 8.

Seabirds, and in particular gannets, are fascinating birds. Even the most uninterested visitor to Bass Rock cannot ignore the continual comings and goings, noise, squabbling and displays of thousands of seabirds. A more interested observer may ask innocently why such beautiful birds as gannets, with their immaculate plumage, should nest in huge, dirty, violent and smelly colonies. A biologist may ask what is the function of these complex displays and why are the males so aggressive, attacking anything within beak range - even their partner-for-life. During his career Bryan Nelson asked such questions and has found answers to some of them.

Living with Seabirds tells the story of his studies on gannets and boobies throughout the world. He began with Northern Gannets *Sula bassana* on windswept Bass Rock in the Firth of Forth and then went on to study boobies, albatrosses and frigate-birds nesting at that evolutionary biologists' mecca, the Galapagos Islands. Next came the guano islands of Peru and home of the Piquero or Peruvian Booby *S. variegata* and Guanay Cormorant *Phalacrocorax bougainvillei*. Subsequently he worked on Abbot's Booby *S. abbotti*, found on Christmas Island in the Indian Ocean (not to be confused with the Pacific atoll of the same name used for British nuclear tests). Finally it was back again to Bass Rock.

The Sulidae are ideal for cross-species comparison of biology and, particularly, behaviour. For example, the skypoint posture of the Northern Gannet, indicating an intention to depart, is found in a different form in all boobies, where it is apparently used as a sexual invitation to approach. The details of these comparisons can be found by wading through Nelson's excellent scholarly

monograph *The Sulidae Gannets and Boobies* (1978): all 1012 pages of it! However, for the general reader and interested birder *Living with Seabirds* provides a more accessible description of the behaviour of the Sulidae. The final chapter gives an excellent summary of some of the major findings of these comparative studies.

This book is not only about the birds themselves but also about the joys and frustrations of studying seabirds on remote islands. Throughout the book it becomes clear that the success of much of the author's fieldwork was dependent on the assistance and support of his wife June, especially when they lived for a year on the two uninhabited Galapagos islands of Tower and Hood. The story of their life with seabirds is told in Nelson's endearing style, recounting his experiences as if chatting to old friends by a cosy fire or over dinner. There are frequent digressions from the main theme. The very honest and open accounts of his feelings and emotional responses to situations provide a wonderful insight into the personality of this outstanding field ethologist.

The open-minded way in which he observes seabird behaviour contrasts sharply with his comments on human behaviour. The latter reveal underlying assumptions that are rather imperialistic and often paternalistic in their interpretation of the human world. However, throughout the book the reader cannot escape the author's boundless enthusiasm for seabirds and wild, remote places. This alone makes it an excellent book for behavioural biologists and bird-lovers alike, but for very different reasons.

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THE SKUAS

Furness, R.W. (Ill. Busby, J.) 1987. Calton: T. & A.D. Poyser. 363 pp., 305 photographs, 100 Figs., 65 Tables. Price £18.00. ISBN 0 85661 046 1.

Bob Furness has spent many seasons among skuas, from Foula in the north to Gough in the south. This book presents a very extensive summary of his work and that of others on skuas, with much unpublished material, starting with a vivid historical review of morphological descriptions. A cladogram depicts the systematic relations of the different species within the group. Furness considers the North Atlantic Great Skua *Catharacta skua skua* more closely related to the Falkland Skua *C.s. antarctica*, than the Brown or Subantarctic Skua *C.s. lonnbergi*, or the Tristan Skua *C.s. hamiltoni*. Populations of the Chilean Skua *C. chilensis* and the South Polar Skua *C. macormicki* are still less related. The three small species of the genus *Stercorarius* clearly are monophyletic.

Much is known about the migration of North Atlantic Great Skuas but knowledge about the other species is rather incomplete, although we know that at least some South Polar Skuas winter in the northern hemisphere. Whether the *Stercorarius* also have a migration route over long stretches of land in spring, like they possibly have in autumn is not discussed. The fact that adult longtailed Skuas *S. longicaudus* in winter plumage are very similar to immatures can, in my view, be the explanation that only immatures are said to have been observed in southern winter quarters.

Different theories explaining the reversed sexual dimorphism in skuas are discussed. Most satisfying seems the assumption that the larger female, which remains near the nest, is better equipped to protect it against predators.

The different species show great similarities in territorial and courtship display, but Arctic Skuas *S. parasiticus* and especially Longtailed Skuas are the most agile of the group, performing much while flying.

The species of the genus *Catharacta* are less evolved in predator avoidance than those of the genus *Stercorarius*. The latter have less conspicuous nests and their young are more cryptic. Furness does not mention that in *Stercorarius* skuas at first the legs and feathers grow relatively fast and in *Catharacta* skuas more emphasis is put on adipose deposition during the first stages of growth. This also could be an adjustment to avoid predation.

Skuas generally return to their territories of the previous year. The hypothesis that the Pomarine Skua *S. pomarinus* is an exception to this rule and is nomadic was proposed by Pitelka, Tomich & Treichel (1955 *Condor* 57:3-18) and has become accepted without any positive data supporting it. How long do we still have to live with this myth?

Different populations of the same species can have different feeding habits and little is known about the life of the skuas outside the breeding season.

Catharacta skuas are at the top of marine food chains. Organochlorines are found in Brown Skuas in greater concentrations than in any other seabird. On Tristan da Cunha, skuas have been nearly wiped out because they are assumed to take lambs. In the Scottish islands they have been persecuted for the same reason.

At the end of the book we find a great number of tables concerning nomenclature, masses and measurements, numbers, food, time budgets while breeding, colour phases, densities, phenology, egg measurements, clutch size, breeding success, contents of organochlorines and heavy metals, and mortality factors.

The treatment of the species of the genus *Catharacta* and of the coastal populations of the Arctic Skua is so extensive that for the years to come this book will be the ultimate work. Compared with these coastal breeders, the tundra breeding Longtailed and Pomarine Skuas have been treated much less extensively, due to the fact

that much less is known about them. Moreover Furness has not studied these species himself but has used reports of others. An incorrectly printed map, the wrong author's name beneath an illustration and untidy trends on some maps betray a great time pressure. The illustrations by Busby and plenty of photographs, together with the quotations from historical works commencing each chapter, make this a very attractive publication.

This book is an admirable piece of work containing

an unbelievable amount of information for everybody who is interested in skuas. Seabird students in general and those who study birds of prey will not be disappointed when they read Furness on skuas.

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