

Reviews

van Franeker, J.A. 2001. **Mirrors in ice: fulmarine petrels and Antarctic ecosystems.** Groningen, The Netherlands: Rijksuniversiteit. 229 pp. including a 13 pp. summary in Dutch. ISBN 90-367-1352-8 (paper). Available from the author: Alterra, PO Box 167, 1790 AD Den Burg (Texel), The Netherlands.

This is a thesis publication in the grand European style. The title, 'Mirrors in ice', refers to the contribution that fulmarine petrels can make to our understanding of the more opaque subsurface events in Antarctic marine ecosystems: their potential role as indicator species. It contains 13 papers, 11 already published or accepted for publication and two submitted at the time the book went to press, plus a brief introduction and an even briefer summary. The journals involved range from *Polar Biology* and *Deep Sea Research* to *Emu* and *Journal of Field Ornithology* and go back as far as 1988. Jan Andries van Franeker is the first author on all but two of these papers and the sole author on three of them. Each paper is fronted by a title page which carries an amusing cartoon, featuring a couple of squint-eyed fulmarines. I could find no reference to the artist; perhaps it was the author himself.

Fulmarine petrels form an important element in most of the papers, with emphasis on the Pintado or Cape Petrel *Daption capense* and the Antarctic Petrel *Thalassoica antarctica*. Three of the papers are basically about methods: for sexing fulmarine petrels from measurements, and for counting seabirds at sea. Another three are about distribution and one is about ingestion of plastic by petrels. The remaining papers all deal in one way or another with seabirds as indicators, either via diet, distribution in relation to oceanography, or the effects of climate on survival and breeding success. These include the most important papers, both in length and con-

tent: 'Carbon fluxes to Antarctic top predators' (*Deep-Sea Research II* 44: 435–455), 'Responses of seabirds, in particular prions (*Pachyptila* spp.) to small scale processes in the Antarctic Polar Front' (*Deep-Sea Research*, forthcoming, 25 pp.) and 'Diet and foraging ecology of Southern Fulmar *Fulmarus glacialisoides*, Antarctic Petrel *Thalassoica antarctica*, Cape Petrel *Daption capense* and Snow Petrels *Pagodrome nivea* ssp. on Ardery Island, Wilkes Land, Antarctica' (submitted, 58 pp.).

Although paper bound, the quality of the production is excellent, printed on glossy paper throughout and with an attractive colour cover. Because most of the material included has been published already (and the rest will be soon, presumably), this volume will be of limited value to those with access to good libraries. However, for anyone who is interested in the at-sea ecology of Antarctic seabirds, or in the fulmarine petrels, this would be a very useful volume to have on your shelf, eliminating time spent riffling through offprints and journals.

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Received 20 December 2000

Fuller, E. 1999. **The Great Auk.** New York: Harry N. Abrams, Inc.. More than 400 illustrations, including 200 color plates. ISBN 0-8109-6391-4 (cloth). Price US\$75.00

Human obsession with the Great Auk or Garefowl *Pinguinus impennis* is what this book is about, and it further fuels the fire of our fascination. As Fuller concludes in his introduction: 'The Great Auk, large and plump, has tempted man since the dawn of history. Whatever the precise reasons for its hold on his imagination, it is a hold that has lasted, and even 150 years after the bird's apparent demise, the grip seems as powerful as ever.'

From photos of all known eggs and surviving specimens to a computer-generated image of an auk chasing fish underwater, this book compiles a sumptuous and eclectic feast of visual images to stimulate the imagination. Among 448 large-format (c. 10"×12") pages, we find splendid reproductions of Great Auk sketches, engravings, lithographs, watercolors, oil-paintings, and sculptures by a virtual who's-who of 19th and 20th century wildlife artists (including Fuller). Traditional portraits are supplemented by

images that once appeared on prehistoric cave walls, cigarette cards, salt-and-pepper shakers, badges and T-shirts, and in children's stories and cartoons. Fuller also provides an assortment of pictures of Great Auk specimens taken from every conceivable angle.

The text is as compelling as the images. Fuller's style is forceful and flowing, and despite the minutiae he provides on every aspect of Great Auk history, little is superfluous. Fuller quotes frequently from previous authors, adding authenticity and flavor to a story that is as much about long-dead people as long-dead birds.

The Great Auk saga is laid out in 15 chapters. In the first three, Fuller introduces the auk, describes its morphology and plumage, and its place in taxonomy. Chapters 4–7 summarize what we know of the biology and extinction of the Great Auk, presenting a

picture of a highly colonial species, awkward on land but supremely adapted for feeding on fish at sea, laying one egg and rearing its chick for a relatively brief time – perhaps feeding it by regurgitation – and then leaving with the downy chick to forage and winter far at sea from colonies. As we may only speculate about much of their natural history, the extremely limited first-hand observations of living birds compiled in these chapters provide a unique (and, sadly, small) window into the Auk world. Fuller expends much more ink on the extermination of the Great Auk, a story that is familiar to many of us. He weighs the evidence for cause: a highly colonial and exploitable species restricted to relatively few sites; relentless persecution by humans for food, feathers and finally as specimens for sale to collectors; and possibly climate change. Despite his declaration that ‘the sheer wickedness of human beings is not a subject on which it is healthy to dwell’, Fuller’s emphasis here is on the barbarous cruelty of humans to beast, with bloody anecdotes aplenty from both sides of the Atlantic and a chapter on the final (documented) kill of remaining auks at Eldey Island.

That leads us to the rest of the book, which is mostly about post-extinction auk-mania and the specimens that kept the passion alive. Chapters 8–10 highlight the obsessive trade in eggs and specimens of Great Auks, and the men who devoted themselves to Garefowl lore and booty: ‘To those who eked out a meagre living among the bleak isles and skerries of the far north, to sailors and fishermen anxious to replenish supplies ... this bird had always been irresistible. But as the Garefowl passed into myth among these peoples of the north, the Great Auk steadily acquired legendary status with a more sophisticated public. ... It fast became a cult creature and to a limited extent it retains this position even today. With the exception of the Dinosaurs, the Dodo, and, perhaps, the Mammoth, no creature carries a name so synonymous with the word extinction.’ Fuller plumbs the depth of his obsession in 219 pages (!) that give us detailed accounts, with pictures, of each of 80 stuffed specimens and 77 eggs known to exist. Here we learn the fate of eggs and specimens, from collectors to taxidermists, artists to academics, auctioneers to millionaires. The reason for this detail, Fuller tells us, ‘is simple. Each of these preserved Auks represents a little tragedy all of its own. They, along with the eggs and bones, are our only tangible contact with the Great Auk, and each of their histories – together with the few stories we have of specific, individual birds – are all that prevent *Alca impennis* from being merely a statistic’. There is a surprising

amount of recorded history associated with each specimen, and while some of it makes for dry documentary, much is fascinating as it involves so many historical figures, institutions, organizations and events.

Finally, in chapters 11–15, Fuller fleshes out his tour of Garefowl lore with a review of Auk prehistory (appearance in midden sites, cave paintings, etc.), a welcome focus on some of the key players and islands that figure so prominently in previous chapters, a quick review of nomenclature, and some anecdotes about purported late sightings of the Auk in the 19th century.

I have few criticisms. There is little to fault in the writing and the art work is stunning. While the printing quality is generally good, my copy has several flaws with large blotches of faded print or images that are clearly printing errors. As far as content goes, one thing to bear in mind is that this is not a scientific treatise, nor was it meant to be. Fuller does a good job of reviewing scientific interest in the species, but his treatment of topics is limited. Furthermore, Fuller espouses strong opinions and he frequently scorns those of previous Auk aficionados; amateur or professional. He seems particularly skeptical of biologists; questioning both motivations and conclusions. For example, while willing to admit a possible role for climate change in the extinction of the Auk, he is ‘certain that Garefowls would be living today if man had left them alone’.

In conclusion, Fuller’s book is a magnificent tribute to the bird and a powerful testament to the obsessive nature of humans. I confess a mild obsession myself as I have studied auks for a while, and my great-grandfather – who lived a short sail from Funk Island – saw living auks (while his father undoubtedly ate them). Despite my obvious bias, I can’t imagine a biologist who wouldn’t delight in reading this book. For those who study extant species of auks, it is simply a must-have book. But you better move quickly. Fuller self-published only 6000 copies and I predict that, like its namesake, *The Great Auk* will become fashionably collectible.

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Received 9 March 2001