

some 2000 miles (3200 km) by canoe in 134 days. Tyrrell, to whom Oberholtzer wrote soon after his return, congratulated him on his trip 'which will add materially to our knowledge of that portion of Northern Canada.' But these expectations (until now) were not realised. While Oberholtzer kept a detailed journal, it has never been published. Further, while he was a competent photographer and took numerous excellent photos, he did not publicise them.

This book, to a degree, rectifies this situation. The main body of the book consists of superb reproductions of a selection of Oberholtzer's photographs: of York boats on the Sturgeon Weir; of the Chipewyan at Brochet and at the encampment on Kasmere Lake; of caribou; of rapids on the Thlewiazia; and of the hospitable and accommodating Inuk, Bite and his family. The definition and composition of the photos are superlative; a photographer with the most up-to-date equipment today would be hard-pressed to match them.

The photos are accompanied by appropriate extracts from Oberholtzer's diary. These simply whet one's appetite for reading the entire journal, which Richard Cockburn is preparing for publication. He has also written a brief essay in this volume on 'Oberholtzer as an explorer,' while Ray Anderson has written on 'Oberholtzer as a photographer' and Bob Hilke has written on his expedition in 1963 when he accompanied Oberholtzer on a trip to Nueltin Lake by plane, canoe, and boat.

This volume is a beautifully produced addition to the exploration literature, which puts Oberholtzer in his rightful place among Canada's northern wilderness travellers. One looks forward with anticipation to Cockburn's edited version of Oberholtzer's complete journal. (William Barr, Arctic Institute of North America, University of Calgary, 2500 University Drive NW, Calgary, Alberta T2N 1N4, Canada.)

WHO KILLED THE GREAT AUK? Jeremy Gaskell. 2000. Oxford: Oxford University Press. xi + 227 p, illustrated, hard cover. ISBN 0-19-856478-3. £18.99.

All readers of *Polar Record* who contemplate undertaking this book are invited to write down all that immediately occurs to them about the great auk. For example, 'a large, northern hemisphere, flightless sea bird, which became extinct in the nineteenth century and....' One suggests that for some readers their knowledge will not much exceed that set out in the previous sentence but, whether it does or not, this is a book that should not be missed. On the face of it, it is a case study of the extinction of the bird in question, but the author has wrapped the known facts relating to the matter, which seem surprisingly few, with layers of fascinating historical writing that are sometimes peripheral to the ostensible topic but that together comprise a coherent and satisfying account of a remarkably sad subject.

The author's approach is to present a series of chapters, each of which is relevant to the overall story of the extinction, but each of which concentrates on a different place, or persons, of relevance. By this means, the reader

receives a remarkable amount of abstruse information. So if he or she is not specifically an ornithological historian, but is, for example, interested in the eighteenth- and nineteenth-century society of Newfoundland, there will be much of interest. The net result is that this book offers something to all readers, even if they are not specifically interested in the fate of the unfortunate auk.

An early statement in the introduction is that 'The Great Auk has the unhappy distinction of being the only bird that was once a regular visitor to the coasts of the British Isles but is no longer to be seen.' It passes on to include an outline of some fundamental points. These include the incompleteness and general inadequacy of early accounts of the species, and that the extinction of the auk was contemporary with the distortion of 'the survival of the fittest' concept into little more than 'might is right.' The author also points out that there was a widespread misconception concerning the range of the bird, which was much more new world than old, and hardly Arctic at all. He comments that it was the extinction of the great auk that led to the passing of laws for the protection of sea birds. He answers the question set out in the title by observing that it was 'the unremitting exploitation which followed the species wherever it came ashore to breed' that caused the 'last of its kind' to vanish from the Earth.

After the introduction is a series of chapters that takes the reader on a historical and geographical tour of the territories within the range of the great auk. The first, entitled 'This rare and noble bird,' seeks to explain what British writers knew about the bird at the start of the nineteenth century, liberally illustrated by quotations from relevant texts. The scene then shifts to Iceland with the story of a serious 'raid on the skerries' on which the auks were breeding, in August 1813, which seems to have had a decisive impact on the already severely depleted species. Then, in a long sketch, the reader is introduced to the interesting personage of Friedrich Faber, an officer in the Danish Army based in Iceland, who diligently searched for, but failed to find, the auk in the 1820s. His work is illustrated by an extract from an article by him in the German journal *Isis* in 1827. This is nearly three pages long and provides clear insights into the difficulties facing the many ornithologists who searched for the auk at that time. In parenthesis, it might be noted that one of the most attractive qualities of the book as a whole is that the author is not afraid to include long, sometimes very long, quotations when he feels that it is better to let the original authors speak for themselves. This inclusion of what constitutes primary evidence in the present context renders the book very valuable and enables the reader to acquire much clearer insights into what the original writers thought and deduced, than he or she would obtain by merely being informed concerning these matters by the author.

The same technique prevails throughout the book. The reader travels with Audubon to Labrador, with Humphrey Gilbert to Newfoundland, and with Peter Struvitz, a Norwegian naturalist, to Funk Island, just off Newfoundland,

which seems to have been the bird's last substantial stronghold. It was Struvitz's collecting of bones of the auk from Funk Island that partly prompted Japetus Steenstrup, of Copenhagen, to undertake research concerning the precise range of the bird and to become 'the father of modern great auk studies.'

This prompts an analysis of the early literature on the subject, which includes the only illustration ever published, in 1655, of the great auk from life. The reader then visits St Kilda in the company of, among others, the oddly named Martin Martin, who published a volume on the island in 1698. He appears to have been a trustworthy author, as well as a most attractive character, and he gave due notice in his book to the 'gairfowl,' as the auk was known, and the place of birds in the island's economy. Further chapters return to Newfoundland with a detailed account of the ruthless exploitation of the auk by the residents. Too late, after an ineffectual proclamation seeking to restrict the slaughter in 1786, the colony passed 'An Act for the protection of the Breeding of Wild Fowl...' in 1845. The book continues with the Faroe Islands, where the last auk appears to have been captured in 1808, but where the exploitation of other sea birds seems to have been on a 'sustainable yield' basis.

The author then passes to the efforts made by prominent nineteenth-century ornithologists, notably Alfred Newton and John Wolley, in seeking any auks that might have survived, and devotes attention to the very last appearances of the bird — in 1834 for the British Isles and at Vardø in northern Norway in 1848. Other more problematic records receive their due attention.

Towards the end of the book, the author gives a concise account of the natural history of the bird and concludes with an analysis of the deliberative process by which the first Act of Parliament 'for the preservation of sea birds' was passed in 1869. In parenthesis, it might be noted that this reviewer was happy to find that, as is not infrequently the case, Westminster had been preceded by Tynwald, the Isle of Man Legislature, which had passed an equivalent, albeit more restricted, act two years before. The preamble to 'The Sea Gull Preservation Act, 1867' explained that gulls that 'formerly abounded on the coasts of this Island, have become very scarce by reason of the extensive destruction of them by persons seeking their plumage,' and that, because they were very helpful in indicating the whereabouts of shoals of herring and in consuming offal from harbours, 'it was deemed advisable to prevent the

destruction of the said birds.' The act was only repealed in 1990 with the passing of a much more comprehensive Wildlife Act (Isle of Man Tynwald 1868).

There is an epilogue that sums up the book, and a full bibliography, a detailed index, informative footnotes and appendices, and comprehensive illustrations. The work is very attractively presented. It includes a frontispiece (increasingly rare nowadays) that is a reproduction of a beautiful painting by Jan Wilczur, and it has a most attractive dust jacket, again a reproduction of a painting, this time by Errol Fuller. The binding is to the usual high standards of the Oxford University Press.

There only seem to be very few slips, or places where one might question the emphasis. It is surely not the case that 'all the islands on which it bred were, or had been at one time, volcanic' (page 3), and it is rather startling, at least for anyone who has been there, to be informed that possibly the gentoo penguin might have been seen on Ascension in 1555 (page 8). More seriously, the latitude entered on the map of the Iceland bird skerries is incorrect (page 19). A problem facing writers wishing to incorporate the work of others is whether to rewrite their prose. On page 54 is a useful map of Funk Island 'from a sketch by D.N. Nettleship' on which the breeding ground of the common murre is indicated, even though the text refers to the guillemot, and on which a line is marked that is referred to as 'East-west axis along which Great Auks likely concentrated along for breeding (inland protection from the splash of waves from sea storms).' One wonders what the English language did to deserve such mutilation. This prose is surely not that of the author, and one would have hoped that in the editing of the book this might have been corrected. It is also unfortunate that Francis Leopold McClintock has become McLintock (pages 135, 148).

But these are only very minor detractions from what is an excellent book. New standards in biological history have been set. The diligence of the author in unearthing the early studies of the bird and its locales must have been extremely time-consuming and arduous; it is wholly admirable. As indicated at the start of this review, it is hoped that this book will receive a wide readership. The author and publisher are to be warmly congratulated. (Ian R. Stone, Laggan Juys, Larivane Close, Andreas, Isle of Man IM7 4HD.)

Reference

Isle of Man. Tynwald. 1868. An Act to prevent the destruction of sea gulls.