

## **BOOK REVIEW**

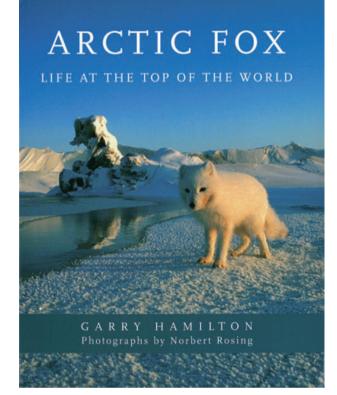
Arctic fox. Life at the top of the world, by Gary Hamilton (2008). Richmond Hill, ON: Firefly Books Ltd. 231 pp. ISBN 13-978-1554073412.

The Arctic fox is the only truly Arctic species among the terrestrial carnivorous mammals of the world. It is distributed across the circumpolar Arctic region. Like polar bears, Arctic foxes regularly traverse the pack ice of the polar basin, a fact that astonished Fridtjof Nansen during his attempt to reach the North Pole more than 100 years ago. However, despite its unique lifestyle, which in some respects is more fascinating than that of the polar bear, there has been no popular book (except a book for children) aimed at compiling our present knowledge about the Arctic fox for an international audience. This omission is in stark contrast to all of the writing about the polar bear. Finally, just such an Arctic fox book is now available, written by the freelance journalist Gary Hamilton.

It must be said at once that the book has fulfilled its aim of being an up-to-date, full account of the most significant biological features of the Arctic fox. There are chapters about the evolutionary history of the species, its adaptations to a life in the Arctic in terms of physiology, morphology, behaviour and life history, and its ecological interactions with prey, competitors, parasites, predators and people. Thus, topically, the book broadly spans many biological science subdisciplines-an enormous challenge, with a distinct likelihood of failure, for somebody without any formal science background. Nevertheless, Hamilton has succeeded in giving accurate and fairly complete accounts of all these topics. The bibliography demonstrates that much of the scientific literature on the Arctic fox has been reviewed. However, the author's success in getting things right can probably be attributed to a series of interviews with active Arctic fox scientists, who have also reviewed large parts of the book. The text is spiced with statements made by these scientists, capturing their fascination for the Arctic fox. The prose is vivid and non-technical, without losing precision-simply excellent science journalism. The few errors I could find typically concerned the biology of some prey species, which is not well covered by the Arctic fox literature or by the expertise of the scientists interviewed.

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The standard graphic illustrations normally accompanying popular science publications written by scientists are absent in this book. However, as Hamilton is able to vividly depict even quantitative aspects of Arctic fox biology through words alone, the book does well without diagrams and curves. Still, this book is much more than its text. Indeed, what makes it an aesthetic masterpiece is its collection of photographs, all by Norbert Rosing. The book includes a number of photographs that, in terms of their composition of animal and environment, are true art. Most aspects of the life of the Arctic fox are photographically illustrated, including some events few people have ever seen. For instance, there are photographs of Arctic foxes in encounters with polar bears, a snowy owl and red foxes.

Despite the impressive collection of photographs, I missed some that would have made the dialogue between the text and the illustrations complete. The Arctic fox is a circumpolar species found in many contrasting arctic environments. However, there are no photographs of coastal foxes in search of eggs or chicks in the typical

steep cliffs of Arctic seabird colonies, which could have illustrated an essential ecological setting for coastal Arctic fox populations. Moreover, such coastal foxes are often dark ("blue") colour morphs, and look very different from the white fox. However, no photographs of such blue foxes can be found in the book. The book devotes a whole chapter to the amazing den constructions made by Arctic foxes. Some of these dens have been used for millennia, and form conspicuous landscape elements in the tundra, in terms of fertilized vegetation and distinct geomorphology. Still, the only photograph supposed to illustrate an Arctic fox den does not demonstrate these features. The Arctic fox is still a common species in large tracts of the Arctic. However, there are now indications that the species is retreating from the southern part of its distribution range. In Fennoscandia, this process has come so far that the Arctic fox is currently red-listed as critically endangered, and large resources are now being spent on rescuing the species from regional extinction. If you have trouble understanding why this particular species, among many others in a similar dire situation, has been able to capture the attention and devotion of so many conservationists and scientists, this book will convincingly tell you why.