

matrix-based population modeling concept and uses count-based and demographic PVAs. The authors actually present a very good introduction to demographical population studies and even to the relatively new AIC concept. It explains its concepts with examples from a great variety of different animal and plant populations world-wide. The authors make a great effort to explain important concepts such as Vital Rates, Lambda, Bonanzas and Catastrophes, Density Dependence, Ricker Curve, Beverton-Holt Model, Log-Population Growth Rate, Accounting for Errors, Environmental Stochasticity, Sensitivity Analysis and many others. As a key take-home message from this book I see the authors' focus on confidence intervals, rather than the pure population means. Such an approach embraces the uncertainty among population estimates in a much more transparent fashion than is usually done. Many conservationists world-wide have encountered the sad but so often true statement made by the authors: "While data uncertainties are frequently used as a reason to rely solely on expert opinion – or on simple political expediency – when deciding difficult issues, we believe that use of more formal analyses can frequently benefit conservation practice. In the absence of such scientific analysis of conservation situations, personalities, politics, and dollars will drive what actions are and are not taken, often with little or no regard to their real conservation value".

The reader will also learn in this excellent PVA-book about the great importance of the extinction-time cumulative distribution function, plotted against years into the future. As the authors show, there are five measures to express extinction risk: the probability of extinction by a given time, the probability of extinction ever occurring, and the mean, median and model times to extinction. Of these, only the first three are the most useful, but the last two are still the ones

most often used.

This book has contributing software in MATLAB and SAS code (also available on the website [www.sinauer.com/PVA/](http://www.sinauer.com/PVA/)), which the practitioner will benefit from. Fourteen pages of literature references and a well organized index will be very helpful to the reader as well.

Despite the "how to" focus of the book, I find the text is not that easy to understand, and it refers the reader too often all over the book. So from my experience, I suspect that most managers will not really read it, nor fully understand all relevant (statistical) details; the mathematical codes alone take up an Appendix. The book on how to link PVAs with Geographic Information Systems (GIS) still waits to be written.

In either case, I admire in this book that it promotes an overall quantitative approach to wildlife conservation, and specifically I love the last chapters, e.g. Management with Uncertainty, Multiple Site PVAs, Viability-Analysis for Spatially Structured Populations and When and When Not to Perform a PVA (a great argumentation help when doing PVAs). There just is no escape from numbers and reliability in this important conservation field.

This important book makes it clear that well-designed demographical studies and PVAs are nowadays among the basics for any wildlife population to be studied and managed. It provides crucial tools for a quantitative wildlife monitoring and conservation in the new millenium. Now it's once more up to the managers to read, to understand, and fully implement all relevant lessons learnt from this baseline publication.

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## MISCELLANEOUS

### **A Bird in the Bush: The Story of the Province of Quebec Society for the Protection of Birds 1917-2002**

By Margaret Pye Arnaudin. 2002. Price-Patterson Ltd., Westmount, Quebec. 256 pages. \$35 (includes postage). Available from: PQSPB, 111 Elm, Beaconsfield, Quebec H9X 2P5.

The Province of Quebec Society for the Protection of Birds (PQSPB) commissioned this history to celebrate their 85th Anniversary. From the beginning, there was a close connection between the Society, *The Canadian Field-Naturalist* (before 1919, titled *The Ottawa Naturalist*) and members of the Ottawa Field-Naturalists' Club, with which the PQSPB affiliated. The impetus for the PQSPB founding came from the Migratory Birds Convention Act of 1916 and one of the aims of the PQSPB was to provide assistance in carrying out the provisions of the Act. The early members were well connected and used their

social contacts to further their cause of conservation. Mount Royal Park and the two Mount Royal Cemeteries were declared bird sanctuaries in 1917 and the Quebec government established bird sanctuaries in the Magdalen Islands, the Gaspé and the Lower North Shore in the early 1920s after petitions by the PQSPB and others. Lewis McIver Terrill was the first president, influential scientist, and a key member from 1917 to 1953. Another very effective president was V. C. Wynne-Edwards (president from 1936 to 1942). Women played a very significant role in the club from the beginning and have always been members of the board. Mrs. Christine Henderson was the first woman president, in 1933.

For over 20 years from 1926 the Education Committee, who were mostly women, organized an Annual

Lecture for Montreal schoolchildren. They were made junior members of the PQSPB and pledged to protect birds. It is estimated that about 50 000 children were "indoctrinated" and made aware of the importance of birds to the natural world. Who knows how influential these lectures were on those young people in later life?

Through the years, the PQSPB board has worked to protect birds and habitat in Quebec, often successfully. However, today collaboration with larger organizations such as The Nature Conservancy is necessary in order to be effective, and many of the early Montreal

area sanctuaries have been overwhelmed by development. Other sanctuaries in the rest of Quebec have survived, and there are occasional additions. Many well-known naturalists, scientists and "birdy people" have been associated with PQSPB throughout its history and there will be many Canadians who will be interested in reading about their contribution to bird protection.

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## Farley: The Life of Farley Mowat

By James King. 2002. Harper Flamingo Canada. xvii + 398 pages.

To paraphrase a legendary literary review of a scholarly book on penguins: "This book tells us more about Farley Mowat than we ever wanted to know". Mowat, a legendary nature chronicler and environmental activist of our time, is depicted in personal detail from cradle to aged guru in great personal detail, not sparing us his relations with two wives, librarian father, mother, and father's mistress/second wife. The publisher assures us, and it is certainly evident in the intimate text, that author King had "unprecedented access" to Mowat, his family, other relatives, editors (notably the legendary Canadian publisher Jack McClelland, the subject of another biography by King), and others.

Mowat was born 12 May 1921. In 2001 there were, according to biographer King's text (page 337), over 460 translations of Mowat's work in 24 languages. In all, Mowat has authored 32 books, been editor for four others, and two collections of his work have been edited by others. Among his writings are his glimpse of Canada's "eskimos" (Inuit) in *People of the Deer* (1952), predators in *Never Cry Wolf* (1963), the Siberian arctic in *Sibir* (1970), cetaceans in *A Whale for the Killing* (1972), the fisheries of the Atlantic in *Sea of Slaughter* (1984), as well as personal accounts of a favourite pet in *The Dog Who Wouldn't Be* (1957), vivid impressions of military service in the Second World War in *And No Birds Sang* (1979), and his own youth in *Born Naked* (1993), and the land *Alive in a Strange Place: A Journey through the Canadian North* (2002) in King's list; published as *High Latitudes: A Journey*.

King has presented us with a marvellously enthusiastic portrait of the self-made Mowat. As a self-appointed spokesman on behalf of endangered native people, northern mammals, and marine life, Mowat holds a uniquely prominent, but always controversial, place among popularizers of natural history. He ranks as a equal with the commercially successful fiction and non-fiction authors who brought Canadian literature to world attention over the last half of the 20<sup>th</sup> Century, but in which category has often been hotly debated. His biographer argues, reflecting Mowat's own view, that in the broad sense Mowat writes the truth, even

though he may not strictly follow facts. His concentration is focused on holding the readers' attention with a good story. Mowat is not unique in this. Canada has had other popular natural history writers who effectively promoted public sympathy for the environment and support for its conservation, even the legendary Ernest Thompson Seton himself, who have been suspect of some fudging in their accounts to serve a purpose.

Regrettably, King has apparently not grasped the legitimate concern that truth can be substantiated only through high standards of factual reporting. Nor has he acknowledged the credibility due to members of the mainstream scientific community who adhere to this principle. Here, they are often dismissed, detractors whose views the crusading Mowat was forced to wage a lifelong battle to surmount. However, the real tragedy of Mowat is overlooked. His great writing flair and sincere concern for the environment would likely have made his books as popular even if he had stuck to the facts; that he did not lessened their effectiveness because, whatever the truth in his crusades, they could be dismissed too easily on the basis of his errors. Typical were the comments of Fisheries and Oceans research scientist, David Sergeant, who said in a 1986 review of *Sea of Slaughter* (*Canadian Field-Naturalist* 100(1): 143-144): "Farley's story is packed with interesting facts. The trouble is, many of them don't hold up to critical scrutiny ... Farley's chief fault is sheer exaggeration."

Mowat often increased the scientific negativity toward himself by taunting his detractors. Erling Persild (1901-1977) who wrote a scathing review of an early book, *People of the Deer*, is summarily dismissed by biographer King as "a civil servant in the Department of Natural Resources and Development". In fact, he was a distinguished arctic field botanist and head of the National Herbarium (scientific plant collection) at the National Museum of Canada (see tribute in *The Canadian Field-Naturalist* 92(3): 298-304). Persild once told me that some time after his review appeared he received a telegram from Mowat quoting figures to show how much the attention it had brought had increased the sales of the book. It further