

ery for salmon by natives, which was even comparable with levels of commercial fisheries from this century. Some readers might find that the book slightly follows stereotypical views of the noble native.

A very strong point in this book is how the North Pacific and its fauna is linked with the "hinterland": Old-growth rainforest, landscape and Bald Eagles. This needs to be considered in the light that resident Killer Whales in British Columbia are among the most contaminated cetaceans of the world.

A very complete picture of the North Pacific is portrayed by fully considering the Russian influence and history. The book outlines well that Russian settlers did much better than the western type of colonization (a point that might be put in doubt for the Kodiak Islands at least). The Russian-American Company was much more relevant in the history of North Pacific settlements and explorations than the Hudson Bay Company (HBC). But nevertheless, as with the HBC, the Russian quest for the North Pacific had the same motivation: central European pelt resources were already overhunted!

Regarding the marine ecology of the North Pacific, the importance of the Aleutian low, Pacific currents, and El Niño are fully described. This ecosystem is driven by "regime changes", which calls for a dynamic management. The author outlines this very well by presenting the ground-breaking work from Russian Scientist T. Baranov, but also from Bill Ricker "Ricker curve" and others at the Pacific Biological Station, e.g., G. McFarlane and D. Beamish. A quote from the book says it all: Understanding catch statistics is like "reading a single faded and crumbling onionskin page from an early draft of Wagner's Tannhaeuser, in a dimly lit room". Another quote of the book and taken from the U.N. Code of Conduct for Responsible Fisheries states, in part, that "the absence of adequate scientific information should not be used as a reason for postponing or failing to take conservation and management measures". Well said.

Galvin makes a strong case that ethnocentric approaches for understanding and managing the North Pacific have failed, e.g. the Chinese might have been in North America much earlier than the Europeans. The book elaborates on the major question "who came

first" since it had such a major economical and political implication for European powers. A major conclusion from this book is that there never was such a thing like an Old World (Eurasian) and New World (Americas).

The chapters on anthropology and human history of the North Pacific and how the Russians, Asians and Natives settled and explored the North Pacific are on the same level than high-caliber books as *Guns, Germs and Steel* by J. Diamond. Just to name some highlights, Galvin mentions how natives grew Arrowhead and potatoes, he cites the work of the Russian Anthropologist S. Fedorova, and he documents that Hawaiians, Japanese, Chinese and Russians presented a major group of settlers. In addition, the book reports a lot of British Columbian and Vancouver history and puts Canada in the context of the overall Pacific.

Despite the fact that whaling, sealing and eating dolphins is as old as the human history of the North Pacific, whale watching (starting as early as 1907) has already produced more profit than commercial whaling ever did for western North America. Greenpeace started in Vancouver, it "was born in the blood of whales". Nevertheless, the author shows that already in the 19th century the pelagic seal hunt provoked the first great international controversy about the over-harvesting of the world's marine mammals. It resulted in the international milestone contract ("fur seal treaty") of 1911 between Russia, Japan, Canada and USA.

Topics mentioned in the seven chapters of this book are so manifold and detailed that only some can be mentioned in this review: Bute Wax, Russian scientist K. V. Belkemishev, occurrence of pilchards in British Columbia, oolichan grease, geoduck, Pollock fisheries, Korean squid fisheries, canneries, Earth Rotational Velocity Index, J. Cook, G. Vancouver, V. Bering and J. J. Walbaum. Although the author emphasizes the problems with old-fashioned type of science for the North Pacific, the book is actually based on scientific publications. The index and the annotated scientific references will be highly appreciated by the scholar. This text book (no pictures but five maps) has no shortcomings.

FALK HUETTMMANN

Biology and Wildlife Department, University of Alaska, Fairbanks, Alaska 99775-7000 USA

Quantitative Conservation Biology: Theory and Practice of Population Viability Analysis

Morris, W. F., and D. F. Doak. 2002. Sinauer Associates Inc., Sunderland Massachusetts USA. ISBN 0-87893-546-0 paperback (41.95 US\$)

This is a great book, which should affect how we research and manage wildlife and its controlling factors. The topic of a Population Viability Analysis (PVA) is not really new, but there are only few books that describe the topic well for the general public and managers. "PVA is the use of quantitative methods to predict the likely future status of a population or collection of populations of conservation concern".

"The promise that PVA holds as a tool for guiding conservation decision-making has been recognized by governmental science advisory boards, by professional organizations such as the Ecological Society of America and by nongovernmental conservation organizations such as The Nature Conservancy." This statement also holds for the Habitat Conservation Plans and for the Recovery Plans of the U.S. Endangered Species Act. However, "Instead of seeing PVA as a valuable tool to aid their decision making, most field-oriented conservation biologists retain the misinterpretation

that PVA models can only be constructed and understood by an elite priesthood of mathematical population ecologists”.

Fortunately, this book is supposed to make PVAs easier to understand. It is based on the advanced matrix-based population modeling concept and uses count-based and demographic PVAs. The authors present actually 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 do 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 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/), 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 awaits 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 millennium. Now it's once more up to the managers to read, to understand, and fully implement all relevant lessons learnt from this baseline publication.

FALK HUETTMMANN

Biology and Wildlife Department, University of Alaska, Fairbanks, Alaska 99775-7000 USA

Their Fathers' Work: Casting Nets with the World's Fishermen

By W. McCloskey. 2000. International Marine/McGraw-Hill, P.O. Box 182604, Columbus, Ohio 43272 USA. 370 pages, \$20.95 Paper.

This book provides the reader with a superb and highly praised overview of global fisheries, focusing on Alaskan waters. In addition, it also covers first-hand experiences for offshore and coastal fisheries with vessels from Japan, Chile, Indonesia, Newfoundland (Grand Banks), Maine (Georges Bank), Iceland and Norway. The book is very pleasant to read since it combines fiction with facts. It is a heroic and romantic description of a likely soon-to-be-gone life of hard work. Nevertheless, reading how other people work very hard and under life-threatening conditions might present some sort of decadence; but so be it.

In case the reader would not be familiar with how to cheat in the business of international fisheries and quotas (led by Spain, Taiwan, Japan and many East European nations) this book will definitely help. It outlines in detail how fishing quotas are easily doubled, if not ignored by many vessel captains and fishermen worldwide. The explicit use of Dynamite Fishing, Liner Nets (an additional net with an illegally smaller mesh-size put inside the regular net), the “Pareja” Method (one huge net pulled by two boats) and many other tricks are shown and suggested; e.g., the same vessel being registered with two different names (thus, multiplying the quota by two), stowing an additional catch somewhere under deck, trading the catch offshore (therefore enabled to start again with a “new” quota),