

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),

and mis-reporting catches. When fisheries officers appear for control and gear inspection, nets simply get cut off (which makes it even worse for fish, seabirds and sea mammals that drown in the “ghost nets” later). Overall, I find that the author, an American, might have a tendency to blame the Spaniards and Russians too much here. Instead, a mention and description of the role that the Vladivostok-based Russian fisheries plays, acting worldwide, could have made the book even better.

The thorough understatement of environmental damage done by coastal and offshore fishery must be of concern to any informed naturalist. The author neglects to address the destructive fishery method from draggers (“seafloor dredging”), which is, for instance, estimated to damage an area larger than that lost through deforestation in the tropics. There is no mentioning of fisheries gear polluting beaches worldwide, or “ghost nets” which float around in the world’s oceans for years (eventually, they will sink, but only the fish know whether they will ever rot). Sensitive by-catch topics such as the endangered Short-tailed Albatross (*Phoebastria albatrus*) caught by freezer-longliners fishing off Alaska are not mentioned, and certainly there is no reporting of the numerous sea turtles, sharks, dolphins, porpoises, seabirds, moon fishes and many other species suffering and dying for the sake of high quality fish. In times of environmentalism, that might be seen as a short coming of this book. Although the occurrence of a “black catch” is somewhat mentioned, one has to read that shrimp fisheries has apparently almost no by-catch. The reader has to keep his/her breath when McCloskey mentions “overpopulations” of Sockeye and seals; 50 000 seals are described as an “overpopulation” rather than victims in a potential by-catch problem. No wonder, the author identifies clearly from the “fishermen’s side”, blames Greenpeace, and does not place fisheries in the overall context of the environment; instead, he mostly focuses on economical and descriptive aspects of fisheries. In this regard, the author’s presentation of Chile’s fishery development lacks sensitivity to the well-proven and negative effects of over-commercialization. On the other side, his won-

derful and detailed presentation of the effects from the Exxon Valdez Oilspill for Alaska and its island communities compensate for the previous short-comings. A remarkable link is shown why the prizes of the Japanese Salmon market are driven by cycles of the Japanese Salmon runs, and thus dictate the Alaskan Salmon fisheries. McCloskey gets closer to the heart of the fisheries problem when outlining that improved efficiency and introduction of very light, and therefore allowing for longer, plastic nets has contributed to the current overfishing crisis.

In the numerous and fascinating book chapters the author also emphasizes and describes that there exists such a thing as severe overfishing: Snow Crab in Alaska; Cod, Flounder and Squid in Newfoundland; and Halibut off West America. He blames governmental mismanagement and elaborates nicely throughout the text that there is also conflict of interest among fishermen on these topics; e.g., unions, and small scale fisheries vs. industrialized trawlers. In the context of governmental mismanagement, New Zealand’s Orange Roughy, a prime example of overfishing and disastrous fisheries management, could have been mentioned, too. The book would have gotten even better when topics such as Native Fishery Rights, North Sea Fisheries and Krill Fisheries in the Antarctic would have been included. The map of the Grand Banks lacks the French Fisheries zone around St. Pierre and Miquelon; but the reader will appreciate that this book has a very detailed index, which allows that it can serve as a valid source of references, too.

The book ends with a well-written and conclusive section on global fisheries and policy. The author quotes from one of his many interviews with experts: “Gathering fishery statistics is an art in probability”. That statement makes it clear that, currently, there can be no sustainable world fisheries. Due to the many topics covered, I thoroughly enjoyed reading this book and got literally “hooked”.

FALK HUETTMANN

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

MISCELLANEOUS

How the Earthquake Bird Got its Name and Other Tails of an Unbalanced Nature

H. H. Shugart. 2004. Yale University Press, New Haven, USA. 227 pages.

What do the following five birds, four mammals and one marsupial have in common: Ivory-billed Woodpeckers, penguins, packrats, Bachman’s Warblers, Leadbeater’s Possums, Red-billed Queleas, Beavers, Giant Moas, Gray Wolves, and European Rabbits? Several are extinct, a few are very numerous, some are common, and others are rare. They all have been chosen by Shugart who, with charm and panache, intro-

duces the reader to a wide range of ecological concepts under the rubric of animal parables.

Shugart, the W. W. Corcoran Professor and Director, Global Environmental Change Program at the University of Virginia, presents nine ecological concepts: forest gap dynamics, niche theory, paleoecology, ecological disturbance, migration, keystone species, island biogeography, domestication, and invasive species. These ecological principles are not presented in a “pristine” form, but are embedded within the context of human transformation of the earth’s landscapes and