

## SEABIRD BYCATCH: TRENDS, ROADBLOCKS AND SOLUTIONS

Melvin E.F. & Parrish, J.K. (Eds.) 2001. Proceedings of the Symposium *Seabird Bycatch: Trends, Roadblocks and Solutions*, February 26-27, 1999, Blaine Washington, Annual Meeting of the Pacific Seabird Group. University of Alaska Sea Grant, AK-SG-01-01. 206 pp., comprised of nine papers, seven abstracts, a symposium synthesis, a preface and index. ISBN 1-56612-066-7. \$20.00.

Ed Melvin has quickly risen to become one of the leaders in the research of measures that mitigate seabird bycatch in fisheries. He is clearly a man who sees solutions rather than problems, appreciates the need for both sides (fishermen and conservationists) to be able to reach workable compromises, and realises that his most vital partners are the fishermen themselves. This rational approach seems to have permeated many of the contributions to this book. The symposium synthesis (by Ed Melvin and Julia Parrish), which summarises the problems faced by conservationists wishing to create change within the fishing industry, and guidelines to finding solutions, is the most insightful description of this conservation issue that I have seen. It is a 'must-read' for anyone wishing to make a meaningful contribution to reducing seabird bycatch in fisheries.

The book will largely interest researchers in the field of mitigating seabird mortality in fisheries operations (primarily longlining and drift gill-nets). However, the 'solutions-oriented' approach that is apparent in many of the papers could be a lesson to any researcher dealing with anthropogenic effects within marine systems. Melvin and Parrish's approach to analysing the problem and finding solutions (as described in the symposium synthesis) has this broad application. Papers cover a wide range of topics, including international initiatives to reduce seabird bycatch globally, methods to accurately describe the impact of fisheries, population dynamics and genetics of affected seabirds, and, most importantly, descriptions and demonstration of practical solutions to the problems. The authors are all internationally recognised leaders in their field.

Perhaps the most significant contribution is that of Svein Løkkeborg on reducing seabird mortality in Norwegian longline fisheries by means of bird-scaring lines and underwater setting. This paper demonstrates that these mitigation measures not only reduce seabird mortality but can also increase target fish catches as a result of reduced bait-loss to seabirds. This demonstration of the economic benefits of employing seabird bycatch mitigation is of immeasurable importance.

Similarly, Christopher Boggs demonstrates the effectiveness of simple mitigation measures in reducing contact rates of Albatrosses with longline baits in the Hawaiian Swordfish fishery. Reduced contacts = reduced bait loss = increased economic benefits to fishermen and reduced impacts on Albatross populations.

Graham Robertson's paper on line sink rates in the Toothfish longline fishery around the Falkland Islands is an example of robust scientific research aimed at finding definable solutions that can be practically implemented. The line sink rate proposed by Robertson in this paper has subsequently been widely implemented for Toothfish longline fisheries elsewhere.

Ed Melvin's work (in collaboration with Parrish and Conquest) on finding novel tools for reducing seabird bycatch in coastal gillnet fisheries in the Puget Sound is yet another example of 'solutions-oriented' research that has brought about operational changes within the fishing industry.

My only substantive negative comment (and certainly not a criticism) is that I found the papers dealing with international agreements and policy to be slightly dated. This field has changed relatively quickly over the years since this symposium was convened, and the information in these papers will probably be less valuable than the rest of the book. Ironically, the recent positive changes in this field (for example, the completion of the Agreement on the Conservation of Albatrosses and Petrels) are largely due to the tireless work of some of the authors of the papers in this book! One last note, the papers dealing with mitigation techniques could have benefited from more illustrations of the devices used.

In summary, this book will be a valuable addition to the collection of any conservationist striving to reduce the impact of fisheries on non-target species.

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## Eye of the Albatross: visions of hope and survival

Safina, C. 2002. Henry Holt & Company, Inc., New York. First Edition. 416 pp., 15 b & w photos, 13 figures. ISBN 0-8050-6228-9. List price \$27.50 for hardcover, \$16.00 for paperback.

*Eye of the Albatross* offers a unique view of the life of albatrosses that soar on the wind over the open sea. Safina accomplished this by reconstructing the actual flight behavior of a Laysan Albatross appropriately named "Amelia", who was tracked using satellite telemetry during a single breeding season. Throughout the book, the reader follows the trials and tribulations of Amelia as she finds food and returns to feed her chick. Combining the knowledge of where Amelia went and how albatrosses behave in general when at sea, Safina describes from an albatross' perspective (i.e. an albatross' eye), what the bird might encounter along the way and how it searched for food. This approach was used to show how life could be a struggle in the natural world, yet despite all the challenges to survive, there are many reasons for hope: hope for conservation of natural places like the Northwest Hawaiian Islands, hope for the survival of threatened species, and hope for the return of an albatross adult to feed its chick. Safina's book is more than just a tribute to the life of albatrosses. As ecologists, we know that animals interact with their surroundings at many different levels. *Eye of the Albatross* captures this by showing how albatrosses, seals, turtles, sharks, other bird species, and humans all share these tiny islands in the middle of the North Pacific Ocean. Add some inclement weather to the mix and you have a dynamic environment that is challenging, serene, at times loud, and savagely cruel. These images and much more are all eloquently portrayed in this book.

*Eye of the Albatross* does not gloss over the sad reality that humans have changed the marine environment and that many organisms suffer as a result of our actions. For example, Safina describes the cruel nature of our past indiscretions with feather collecting and its near demise of the Short-tailed Albatross, the dangers that albatrosses and other seabirds encounter when foraging around fishing vessels, and the silent killers of marine life like the discarded fishing nets and copious amounts of plastic garbage that wash up on the shores of the Northwest Hawaiian Islands. This last point is elucidated in a rather grim encounter that Safina had with a Laysan Albatross adult, who attempted and failed to regurgitate a plastic toothbrush from its crop to feed a chick. These images leave the reader with many lasting impressions that are powerful reminders of how humans impact organisms, even in the remotest places like Midway Island. Nonetheless this book is not all doom and gloom, which would have been too easy to end this way. Rather, Safina highlights many bright spots that embrace the 'Vision of Hope' for our marine ecosystems. Several examples highlighted are conservation efforts by research biologists and wildlife managers to save the highly endangered Hawaiian Monk seal and discovery of a cause for the papilloma virus that is affecting Green sea turtles in Hawaii. Safina also spent several days aboard an Alaskan fishing vessel named the *Masonic* that is setting a trend in mitigating seabird bycatch, one of the biggest threats to seabirds. These examples provide a glimmer of 'Hope' that humans will someday be able to rectify the damage inflicted on the marine environment.

The book has several fairly detailed although not exhaustive discussions of albatross biology and ecology. In fact the book starts out with a discussion of the one thing that is most impressive about albatrosses – their ability to soar. The details and explanations are fairly accurate although references are not cited so it is not easy to discern where the information was obtained. Nevertheless, it is obvious that Safina invested a significant amount of time researching the background for this book. For instance, he made several trips to the Northwest Hawaii Islands to work with researchers and he ventured northward to Alaska to experience first hand the kind of environmental extremes Hawaiian albatrosses face when traveling between Hawaii and the Gulf of Alaska to search for food. The author also uses many figures or more accurately charts to illustrate the flight path of Amelia, which are artistically drawn yet they clearly show the amazing range of the bird. The book also includes several historical perspectives about interactions between albatrosses and man. Some of these interactions are positive but not surprisingly, many are negative. I was surprised to learn that Samuel Taylor Coleridge, author of *The Rime of the Ancient Mariner* (1798), never actually saw an albatross!

Overall, I enjoyed this book because it combined factual research with a rich literary quality that was humorous, joyful, and at times sad. I was a bit skeptical after reading statements in the Preface like "I traveled with albatrosses through much of their range, asking them to reveal their world" and "I let Amelia draw me a map of her world so I could visit her country and its neighboring nations populated by other beings" because these images conjured up a more fictional story where albatrosses and humans talked to one another. This was not the case at all. Rather Safina, a scientist who studied seabirds for many years before moving on to the National Audubon Society, and now, the Blue Ocean Institute, used the albatross as a metaphorical tour guide to show us what life is like in the pelagic realm where few humans ever venture. To his credit, he chose an organism like the albatross, which is so identifiable to sailors, fishers, and lay public, to stimulate interest and awareness of changes that are occurring in the marine environment. Thus, *Eye of the Albatross* bridges the gap between science (and scientists) and the general public in a way that is factual and entertaining at the same time. I also enjoyed this book because it details a part of the world that is in my backyard and it focuses on a group of seabirds that I have spent several years studying. After reading this book, I will have a slightly different perspective on the lives of these remarkable birds.

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