

The Race to Save the World's Rarest Bird: The Discovery and Death of the Po'ouli

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Alvin Powell, also uses the case of the Poʻouli to discuss the history of avian conservation in Hawaii, as well as several broader issues related to conservation and endangered-species recovery in general, such as the U.S. Endangered Species Act and recovery expenditures. This book will be of interest to professional ornithologists and conservation biologists and also to a lay audience, and it would make a useful contribution to both academic and public libraries.

From 2000 to 2006, I was the Hawaiian Bird Recovery Coordinator in the Honolulu office of the U.S. Fish and Wildlife Service (USFWS). One of the projects I oversaw was the Maui Forest Bird Recovery Project, which was charged with recovering the Poʻouli and other endangered birds. I was involved in the latter stages of recovery efforts for the Poʻouli, and in the heart-wrenching and at times acrimonious decision of which among several alternative recovery strategies provided the best, albeit slim, chance of preventing extinction (VanderWerf et al. 2006). When I was asked to review this book, my initial reaction was to decline, because I did not want to dredge up old frustrations or restart a stream of angry communications. After leaving the USFWS, I contemplated writing a book about the Poʻouli myself, in collaboration with Kirsty Swinnerton, former director of the Maui Forest Bird Recovery Project. I soon realized that, despite my best intentions, it would be difficult to find a big enough block of time to write such a book. So, instead of writing a book about the Poʻouli, at least I have the chance to review a book about the Poʻouli. In my opinion the book is thorough and accurate, and the author, Alvin Powell, is to be commended. There are still a few Poʻouli stories left to tell, however, and in addition to reviewing this excellent book, I have taken the liberty of relating a few supplementary anecdotes that I hope are interesting.

The book begins toward the end of the chronicle, by introducing the mountain home of the Poʻouli and describing the capture, care, and eventual demise of a bird that was brought into captivity in hopes of founding a breeding program. As we learn later, that bird probably was the last of its species, and the first chapter sets the stage for this poignant story by interspersing tidbits of information about how such a dire situation came to be. In chapter 2, the reader is quickly immersed in the Poʻouli drama through details of the heroic efforts to sustain the bird in captivity by Richard Switzer and veterinarians from the Zoological Society of San Diego. The third and fourth chapters relate the remarkable tale of the Poʻouli's discovery in the remote rainforests of Haleakala Volcano by undergraduate researchers from the University of Hawaii and its description as a new genus and species that astonished ornithologists (Casey and Jacobi 1974).

Several of the middle chapters focus on factors that caused the decline of the Poʻouli and that continue to threaten Hawaiian forest birds today. In these chapters Powell also describes in embarrassing detail the painfully slow process through which conservation efforts were forced to progress. The Poʻouli was already very rare when it was discovered, and it declined rapidly during the 1980s. Habitat degradation by feral pigs was the most serious threat, yet because of "bureaucratic dithering" and inadequate funding, the first hands-on conservation action, fencing of the newly created Hanawi State Natural Area Reserve, did not begin until 1990. Remarkably, this lesson may not have been adequately learned, and a similar scenario is being replayed again today on

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The Race to Save the World's Rarest Bird: The Discovery and Death of the Poʻouli.—Alvin Powell. 2008. Stackpole Books, Mechanicsburg, Pennsylvania. viii + 280 pp. ISBN 9780811734486. Hardcover, \$24.95.—This book tells the story of the Poʻouli (*Melamprosops phaeosoma*), a forest bird that was discovered in 1973 in the unlikely location of Maui in the Hawaiian Islands and is believed to have gone extinct barely 30 years later. The author,

the island of Hawaii, where another honeycreeper, the Palila (*Loxioides bailleui*), is threatened by browsing of native forest by mouflon sheep (*Ovis musimon*) introduced for hunting. Lawsuits in the 1980s resulted in state and federal court orders to eradicate sheep and goats to protect critical habitat of the Palila, yet sheep numbers have not been effectively controlled and habitat degradation continues. Additional fencing and increased sheep removal will begin in August 2010, but annual surveys have shown that Palila numbers have declined steadily since 2003 to a precarious 2,640 birds (Leonard et al. 2008), and it remains to be seen whether these actions will be completed in time to reverse the decline.

The titles of chapters 12 and 13, “Back from the Dead” and “Funerals and Frustration,” respectively, grimly hint at slow progress, and indeed relate stories about regulatory impediments and lack of consensus on recovery strategies in the 1990s. After years of agonizing debate, a translocation of one of the last three birds into the home range of another was attempted in 2002, which was carried out successfully but ultimately did not result in formation of a wild breeding pair (Groombridge et al. 2004).

In chapters 14 and 15, the book switches to a broader context to present brief but informative histories of captive breeding and endangered-species conservation. This is a common pattern in the book—alternation between focus on the Po’ouli and more general discussion. These sidebars help to put the story of the Po’ouli into a bigger picture and, hopefully, will help the book appeal to a wider audience, but they sometimes made me want to skip ahead to get back to the Po’ouli drama, though I never did. In fact, Powell’s perusal of expenditures by the USFWS on endangered species is revealing; of 1,340 listed species in 2004, 20 taxa received half the funding, and 9 of the top 10 were fish populations of commercial interest. That same year, the Po’ouli received \$67,203 and ranked 389th. Leonard (2008) further explored this alarming paradox and found that Hawaiian birds constitute 33% of the listed bird taxa yet received only 4% of recovery expenditures, and that North American species received over 15 times the funding, on average. In 2003, there was a nationwide call for proposals within the USFWS to help fund recovery actions directed at species “on the brink,” those urgently needing a one-time funding boost to prevent their immediate extinction. Because the Po’ouli was thought to be the rarest bird in the world, with only three known individuals, we thought “this is perfect, how can a species be more on the brink?” Project efforts at that time were aimed directly at preventing extinction by starting a captive-breeding program, so we thought there was an excellent chance of obtaining much-needed support. We submitted a proposal and waited patiently for several months to hear whether a portion of the million-dollar pot would be allocated to the world’s rarest known bird. Unfortunately (for the Po’ouli and for us), only a few days before the funding decision was to be made, news broke about rediscovery of the Ivory-billed Woodpecker in Arkansas. Not long after that we received an e-mail saying that the funding decision would be delayed until it was determined how much of the million dollars would go to the ivory-bill. I do not know how much of the special funding actually went to the ivory-bill, but I do know that none was allocated to the Po’ouli. This anecdote is not meant to be a swipe at the ivory-bill or any of the efforts aimed at its recovery, but rather an illustration of how little attention (and funding) the Po’ouli received. This species went extinct almost anonymously, with little fanfare until it

was already gone. Underfunding was certainly not the only reason that recovery efforts for the Po’ouli were unsuccessful, and several species have gone extinct despite substantial resources, but greater support might have allowed quicker action at an earlier stage, made additional options available, and perhaps persuaded regulatory agencies that greater effort was not just needed, but actually possible. All this serves to demonstrate that recovery expenditures are often based not on need, but rather on geopolitics, lawsuits, and economics.

Chapter 16 brings the book full circle and picks up the story where chapter 2 left off, with the death of the bird in captivity. Necropsy of the bird by San Diego Zoo veterinarian Bruce Rideout revealed that multiple chronic factors had contributed to its death; it had simply died of old age. The system decay exhibited by this aged survivor was in some way an allegory for the species and for Hawaii as a whole. There was no single catastrophic cause of death, but rather several afflictions that gained strength as the bird’s vigor ebbed. Various tissues were harvested to create and cryogenically preserve a cell line that could be used to aid in conservation and, in theory, be used to resurrect the Po’ouli someday.

The final two chapters, “Knowledge and Hope” and “A Forest Bird’s Echo,” are retrospectives that include thoughts by several people on why recovery efforts failed. Some believed that there never really was much chance of success, and most agreed that more decisive action was needed at an earlier stage. Several people suggested that the reluctance to undertake more hands-on management actions was caused by fear—fear of risk, and fear of blame in case of failure. Lack of consensus on risky actions can increase the fear of blame, resulting in no action, which ultimately may incur the most risk of all, and that is perhaps the most important lesson of the Po’ouli.—ERIC VANDERWERF, *Pacific Rim Conservation*, 3038 Oahu Avenue, Honolulu, Hawaii 96822, USA. E-mail: eric@pacificrimconservation.com

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