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Review of: "Escape from the Ivory Tower: A Guide to Making Your Science Matter", by Nancy Baron

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Making your work count

Baron, Nancy. 2010. **Escape from the ivory tower: a guide to making your science matter.** Island Press, Washington, D.C. xxii + 246 p. $55.00 (cloth), ISBN: 978-1-59726-663-5 (alk. paper); $27.50 (paper), ISBN: 978-1-59726-664-2 (alk. paper).

Key words: making science matter; *media relations*; *policymaker relations*; *science communication*.

Collectively, ecologists produce a staggering amount of information each year. Using the Web of Science Journal Citation Reports subject classification to define the field of ecology, our discipline comprises 129 ecology-specific journals that in 2009 published an astounding 14 280 articles. How much of that information is being used by policymakers? How much is potentially useful to those audiences? The message in Nancy Baron's new book, *Escape from the ivory tower: a guide to making your science matter*, is that all of it could be taken up by the media, publicized, and utilized by policymakers if only we could communicate it better to reporters and politicians. But communicating science and making it matter to the public or to policymakers are not the same thing, and the book falls short in addressing this latter point.

Baron assumes throughout this book that the difference between science that matters and that which does not comes down to how well scientists communicate their research to the media and policymakers. As such, she limits her advice and analysis to that topic. This book succeeds in that more limited scope: it is useful as a resource to help scientists simplify complex ideas and more effectively communicate with broader audiences.

Baron has substantial expertise in science communication. She is the lead communication trainer for the Aldo Leopold Leadership Program, which trains ecologists and other environmental scientists to effectively communicate with those outside of academia, and works extensively with COMPASS, the Communication Partnership for Science and the Sea. Through these organizations, she has worked with well-known scientists to publicize their research. Expounding upon these experiences, she navigates the reader through an exploration of the mysterious worlds of journalists and policy makers. She does a particularly good job in describing the pressures that journalists are under and thereby helps scientists to better understand why interactions with journalists unfold as they do. All researchers would benefit from reading Part III of this book, "The how-to toolkit," which includes advice on how to hone a clear summary of your work and its relevance to a variety of audiences.

Baron's exploration of policymakers' worlds is a bit thinner. She describes the time demands that constrain policy makers, offers useful advice for making the most of meetings with decision-makers, and offers glimpses into the knowledge-gathering systems that members of Congress use. Her analysis falls short, however, of exploring how science fits into complex policy processes. That subject is beyond the scope of her book; however, if we, as researchers, hope to make our science matter to policymakers, it might be useful to understand when and how they need our knowledge.

The size of the scientific enterprise is enormous. Not all of the research that scientists produce is equally interesting to the media, nor to policy makers. I would wager that most ecologists would not want to read in the media about all of the studies that our fellow scientists produce, and I shudder to think of what our elected officials would do if the authors of all of these ecological studies contacted them to set up appointments to discuss their research. Certainly they would have an even more difficult time sorting out what knowledge is important to their decision-making than they already do. This book does not provide adequate guidance to help a researcher determine if his or her work is likely to be valuable to those audiences because it confuses scientific excellence with policy and/or media relevance.

Baron misses the opportunity to explore the many ways in which scientists can ensure that their research matters to a broader audience. Other researchers make compelling arguments that enlisting a wide variety of stakeholders as collaborators in research—a strategy described and called "public ecology"—can not only facilitate the uptake and utilization of the resulting knowledge by policymakers, but also can improve the quality of the science. Others argue that including members of the public in research not only enables

researchers to collect data from areas and on scales that would otherwise be impractical, but ensures an audience of people interested in that work. Dispersed data collection aided by the public may cause hesitation amongst ecologists, but many important datasets result from work like this. The annual Christmas bird count is one visible example that is of great importance to science and has helped to foster an increasing appreciation of ecosystems amongst the public. Many scientists are experimenting, innovating, and succeeding in making their science matter to the public and to policy. As a purported guide to "making your science matter," I had hoped this book would introduce some of these innovations.

Baron presents a linear model of science, in which researchers conduct their work, publish the results, and that knowledge then feeds into policy processes. But decision makers confront real problems, operate on timelines they may not be able to control, and work within institutions that constrain the decision-making process and influence the types of knowledge they can use. If scientists don't understand those constraints, trying to influence policy via a linear process of knowledge generation is a crapshoot. While there are examples of studies finding their way into policy in that manner (there are more efficient ways for science to inform policy: rather than pushing our science onto decision-makers who may or may not be able to act on that information), we could instead try to understand policymakers' knowledge needs and work with them to identify what research is useable.

A group that I work with recently completed a five-year project to better understand how to reconcile the supply of knowledge with the needs and capabilities of decision makers, and our research indicated that science is most readily used when scientists and decision makers grow to understand one another's needs and capabilities. Ensuring that connection means rethinking the linear model of science, and instead establishing lasting communications and feedbacks between the users and creators of knowledge such that knowledge needs are considered throughout the scientific enterprise.

Baron's book succeeds in helping scientists to better communicate their work to broader audiences, and we can all benefit from her expertise in those areas. But it avoids the more important questions of *what* science should be communicated, and how to make science valuable to those we are communicating with. If you want to do a better job of explaining what you do to journalists or policy makers, this book will help. If you were hoping for information on the myriad innovative ways in which researchers can escape the ivory tower to provide knowledge that is both useful and used by decision makers in the real world, you may be disappointed.

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