The Habits of Successful Ecologists, or Does Facebook count as ‘outreach’?

Simon A. Queenborough & Ira R. Cooke

Although ‘biologist’ may rank in the top 10 jobs according to CareerCast.com (New Scientist 7th Jan 2011, 16-17), there are times when it might not feel so great. Got a thesis to finish anyone? A paper? Grant application...? A lecture to prepare, or exams to mark, papers to review...? On top of all the science we do, we are also expected to blog and tweet our latest exciting discoveries, work with citizen scientists, politicians, schools, trying to make science ‘accessible’.

Oh, and did we mention spending time to spend with friends and family?

Over the coming year, extending the Bulletin’s ‘methods’ theme, we will be looking at what makes a productive ecologist. How do some scientists publish so many papers? And further, how do scientists maintain a productive career AND a happy healthy family and social life? Is it possible to attain a balance between work and play?

Balancing work, life and everything else we do can seem daunting. How can a lowly PhD student (or post-doc or lecturer...) ever attain the dizzy productivity of the likes of the highly cited ecologists recently identified by Neumann (2009, Fig. 1). Some of these ecologists publish several papers a month! This level of productivity is astounding and can seem disheartening to young (and even old) scientists.

However, this series is not aimed at engendering academic envy or even suggesting that we should be publishing at these high rates. (There is serious ongoing discussion about how to rate academic success, and the number of publications is only one part of this). What we aim to do is provide some clues as to how techniques and methods that scientists such as these can help us to work efficiently, evidence-based of course! How can we work efficiently so that we are happy that our science does us proud and we also have time to spend with our loved ones? In our first Prolific Profile, tropical ecologist Bill Laurance suggests that this is possible (Box 1).

Fig. 1. Number of (A) citations, (B) publications, and (C) mean citations per publication from the 30 most highly cited European ecologists between 1996 and 2007. (Data from Neumann 2009)

In the next few issues of the Bulletin, we will focus on several work patterns that affect science and consider evidence-based methods for improving such things as time management, motivation and productivity. Furthermore, we will also be conducting our own survey of British ecologists to examine how work patterns and social characteristics influence scientific productivity and social wellbeing.
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PROLIFIC PROFILE #1: William F. Laurance

Distinguished Research Professor & Australian LaureatePrince Bernhard Chair for International Nature Conservation School of Marine and Tropical Biology James Cook University, Queensland, Australia

1. How soon in your career did you author your first publication?
I published my first refereed paper in my senior year as an undergraduate. In fact, I eventually published five papers based on my undergraduate research, though it took me a couple of years to get all these published.

2. How important do you think it is for young academics to publish early and often?
I think it’s absolutely vital. In fact, I would say that the best correlate of long-term scientific productivity is the number of papers a scientist produces early in their career. Urging our students and postdocs to publish early, and often, is one of the best things we can do for their careers.

If I could say two things to young researchers about publishing, it would be this. First, make writing a habit—the more you do it, the easier it gets. I try to write at least a little bit every day, usually early in the morning. Second, when you’re working on a paper, focus on it, and only it, until you finish. Producing a paper is all about momentum. The worst thing we can do is to get side-tracked or try to multi-task while writing.

3. How do you maintain a good publication record while pursuing major research projects that may take years to complete?
I believe a scientist should publish all kinds of papers. By this I mean things like book reviews, letters, syntheses, book chapters, popular articles, and contributions to newsletters and bulletins, many of which can be produced quickly and pretty easily (Fig. 2). Of course, it’s important to publish some hefty empirical papers based on major research projects, but I think it’s a mistake to publish only these kinds of papers.

Publishing many different kinds of papers gives us excellent writing practice, builds up our CV, promotes our professional reputation, and, crucially, helps us to disseminate knowledge. It’s what we’re about, and it’s all good.

![Graph showing publications by year and type](image-url)

Fig. 2. The number and type of articles produced by William Laurance between 2001 and 2016.
4. How important are collaborations in maximising research efficiency, and does this change as one gets further along in one’s career?
I err on the side of being overly generous in offering collaboration. If someone helps me even a little, I’ll offer them co-authorship. In the long term, I feel this has really benefited my career. When I ask someone to help me, they usually do, as they know I’ll reward their efforts. And I find that people often reciprocate by putting me as a co-author on their papers, even if I’ve made only a modest contribution. What goes around, comes around.
For younger researchers, it’s important that they get some lead-author papers. However, in my view, there’s not much difference between a single-author paper and one with one or more co-authors, so long as the student has the lead position. And adding additional co-authors costs you very little. Anything beyond two authors is still just “et al.”

5. What motivates you in your work?
I have a strong desire to contribute to environmental conservation, and my science and conservation activities are very much focused on this aim. It’s my biggest mission in life, aside from trying to be a decent father and husband, and it gives me a real sense of purpose. I think everybody should believe in something bigger than themselves—something they’re willing to fight for.

REFERENCE


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