

How to Succeed As a Scientist at The Nature Conservancy

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All of us received our training in science at universities, where we got to observe one model of "successful science." Many of us have worked in government agencies, where there is another model of successful science. And then there is TNC. Below is one person's view (P. Kareiva) of what it takes to advance in TNC as a scientist. Here, I focus on skills and behaviors that you will help you be an effective TNC scientist, paying particular attention to things that are a departure from what is emphasized in science graduate programs. I strongly recommend you read Randy Olson's book, *Don't Be Such a Scientist* to prepare yourself for life in TNC.

1. **Optimism, energy, and a "can do" attitude is probably the most important attribute** (whereas the "find the weakness in everything" training you get in graduate school can be a severe liability).
2. **You must be fast ("quick and dirty")**: when your boss or a senior manager asks you for something, provide it quickly, and answer that e-mail immediately. Responsiveness as opposed to "I'm too busy" is key.
3. **Publishing is important**, but will advance your career ONLY if the publication has a high media/external impact (which most pubs do not), or addresses a specific TNC question/project/topic.
4. **You must be able to put your work in a global context** - how does your science project address a pressing global problem or challenge faced by conservation, or by TNC?
5. **You must be able to talk to a diverse set of audiences in a compelling manner** – from the science council (rigorous academics) to "Sally public" to a congressional committee to time-pressured and impatient senior managers.
6. **Keep it simple** - the tools, the talks, the methods, everything. The best researchers know how to strip away the complications and find the essence of a problem (meanwhile the average worker-bee scientists are mired in details). So do not think "complicated" is a badge of good science (read Watson and Crick's DNA paper, Bob Paine's "*keystone species*" paper, Richard Levins' original meta-population paper, and so on). In our applied work, this is even more true.
7. **Keep up with the science and cutting edge tools**: although you should keep it simple, you should also know the most cutting edge tools approaches. Keeping it simple has to be a strategic decision, not a decision based on ignorance.
8. **Build three vibrant networks of science colleagues**: academic, external NGO and government and within TNC. These are people with whom you exchange articles, cool links, musings, YouTube videos, and so on. You should strive for a minimum of 3-5 scientists within TNC (but with whom you do not work directly), 3-5 scientists in other NGOs or government, and 3-5 scientists in academia as your "networks."
9. **Be good at leading and running working groups**: a lot of what we do in TNC is done via "working groups." There is an art to running effective working groups that includes planning, motivation, breaking down a problem into manageable parts, running good calls and meetings, etc.
10. **Develop a sense of what is useful and how to use science to help people** (e.g., fundraisers, state directors, external affairs colleagues, marketing staff, etc) - this is more important than being right. And besides, scientists are never exactly right-every paper you have ever read has some mistake or flaw. Big deal. Did it represent an advance in spite of its mistake?

11. **Be fearless about taking risks, but quickly admit if you are wrong.** In TNC there is no room for cautious science.

12. **Develop some sophistication regarding the interplay of science and policy:** TNC has a very effective external affairs group that often calls upon scientists for facts and support. There is always a tension between policy wonks and scientists (it is cultural). You need to understand the cultural differences and know how to work with and communicate with policy wonks. I have never seen a graduate program that prepares you for this. I recommend two books for this: Mike Hulme's *Why We Disagree About Climate Change* and Roger Pielke's *The Honest Broker*.

13. **Get really good at using the internet** for data and information sharing, working Groups, 'WebEx's, GoogleWave, etc: TNC is a highly dispersed organization. 'We Cannot afford to and it would be environmentally unsound to rely on traveling to in-person meetings for our work.

14. **Learn to be engaging in oral presentations:** this is hard-it means being a bit of a show person. But if you are quiet and reserved, no matter how smart you are, you will not get very far in TNC. On the upside, know that even a pathologically shy person can do this if they think of it as "performance."

15. **Above all, be generous and share ideas and data:** in academia it is all about being the brilliant one-the lead author, the principal investigator. To get tenure at a premier university you have to convince your peers you are brilliant (even though probably no one at that university is really brilliant). In TNC you are part of a community, and it is group success that is important. Generosity is appreciated and rewarded in TNC. And it will feel good.