Conference Abstract

Why do we do what we do?

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Abstract

In the fifty years since I became a scientist, there have been many changes in the way we work, in the tools we use, in the software we have available to us and much more. But our motivation to "Do what we do" hasn't really changed at all. A survey carried out many years ago in Brazil asked biologists why they became biologists. Answers included going to the beach with the family and making shell collections and then trying to identify them; being involved in backyard bird surveys; catching butterflies in the local meadows, etc. In my own case, it was working on the farm with my father who, at least to me at the time, knew every native plant in the area as well as the grasses and crop plants. I began collecting and pressing grasses at a young age, and those collections are now housed in the herbaria of the University of New England and James Cook University of North Queensland. I am sure that most of you here have similar stories.

In this presentation, I talk about the changes that I have seen over those fifty years in the way we work, including working at the Australian Biodiversity Resources Study (ABRS) on the Australian Plant Name Index (APNI) and the Flora of Australia; the Environmental Resources Information Network (ERIN) on digitisation projects; environmental, species and climate change modelling; data quality and decision support systems; with the Centro de Referência em Informação Ambiental (CRIA) on data quality and niche modelling; and on projects for the Global Biodiversity Information Facility (GBIF), The Global Environment Facility of the World Bank, United Nations Environment Programme (UNEP), Bioversity International, and others on a range of topics including on the conservation of crop wild relatives, reserve selection, rapid biodiversity assessment, data quality, and georeferencing

—and, of course, Biodiversity Information Standards (TDWG). I'll also touch on working with citizen science and tools such as iNaturalist.

One key change in the way we work now compared to those early years is in the way we collaborate. A lot of that collaboration has been enhanced and made possible by the Internet: email, the World Wide Web, video conferencing, and chat tools like Zoom. Previously we published some research and then later another person would see that research and add to it, etc. This could take years for advancements to take place. Now, we collaborate: across institutions, countries and across the globe and that has sped up the rate our science can advance. TDWG has been a great example of that collaboration, along with agencies such as GBIF.

So where will our science take us over the next fifty years? I have no idea, but the advances are likely to be at least as great as the last fifty, so I envy the young scientists in the audience just starting out and getting to grips with artificial intelligence (AI) and all that is likely to bring. We should be wary of AI—but not scared of it—just like computing fifty years ago.

In conclusion, what then motivates us to continue to "Do what we do" well past retirement age? In my own case, my motivation throughout my life, has been to add to the biodiversity knowledge base so that those who come after me start at a far better knowledge level than would otherwise have been the case.

Keywords

science, motivation, history

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Presented at

TDWG 2023

Conflicts of interest

The authors have declared that no competing interests exist.