

Social learning and the researcher–practitioner divide

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Biodiversity conservation, like disciplines as varied as education, healthcare and political science (Belli, 2010), is hindered by a researcher–practitioner divide often manifested as a failure to translate research outcomes into effective action (Knight et al., 2008). It arises partly because scholars, rather than practitioners, drive the research agenda. Observing that research generated by local conservation agencies has greater practical relevance than that carried out by research institutions working in isolation, Smith et al. (2009) argued that ‘researchers must allow government conservation agencies and other local groups to set the broad agenda for research and decide how to implement results’. This goal, the authors recognized, is often hampered by a lack of capacity and influence amongst practitioners, and therefore they advocate the creation of social learning institutions to bring together researchers and practitioners, permitting the transfer of skills and knowledge and allowing local agencies to directly contribute to research prioritization.

Such social learning institutions are certainly required in Madagascar, a global conservation priority and living laboratory for research into the evolutionary processes that have given rise to unparalleled levels of endemism. Madagascar is in the process of tripling the coverage of its protected area system, with > 100 new protected areas being established to conserve biodiversity and promote development through sustainable use of natural resources. Although conservation science has facilitated the design of an optimal protected area portfolio to ensure maximum representation of biodiversity, it has told us little about how individual protected areas can be effectively managed. Experimenting with new protected area categories and governance models while attempting to balance the needs of multiple stakeholders (Gardner, 2011), the need of the Malagasy government and its NGO partners for management-relevant research far outstrips available research capacity. The protected area expansion programme is time-limited (an ‘emergency conservation context’; Marie et al., 2009) and promoters of protected areas, largely NGOs, have therefore rushed to begin the establishment process, sometimes in landscapes for which they have limited prior

understanding of either the biodiversity or the complex local socio-ecological systems. This contrasts with the science-based approach that underpinned the establishment of protected areas created as integrated conservation and development projects in the 1990s (e.g. Kremen et al., 1999).

As a doctoral researcher, protected area management planner and frequent ecotourist in Madagascar I often encounter evidence of another side of the researcher–practitioner divide: our collective failure, as conservation scientists, to communicate our knowledge to our partners in the field. Two particularly alarming observations inspired me to write this Editorial. Firstly, I have met several protected area managers who were unaware of published faunal inventories of their sites despite having collaborated closely with the authors during their fieldwork. Secondly, it is common for guides and interpretation materials to refer to lemurs, the country’s flagship species, using nomenclature that is 10 or more years out of date, even in protected areas housing world-class primate research centres. Keeping abreast of the latest advances in classification is no easy task in a country where many groups remain in a state of taxonomic flux—the number of recognized lemur species, for example, has risen from 38 to 97 in the last 2 decades (Mittermeier et al., 2008)—but to visitors equipped with the latest field guides such inaccurate visitor services can appear to lack professionalism and could lead to loss of respect for, and faith in, protected area management agencies.

If protected area staff don’t know which species occur in their parks, or what the taxa are currently called, it is because researchers at these sites haven’t shared this information with them. Improving communication between researchers and practitioners is essential if we are to enhance the relevance of conservation science and build capacity amongst those tasked with implementing conservation. The proposed social learning institutions of Smith et al. (2009) provide a forum for such exchanges but require organization and funding and would be most far-reaching if held in centralized locations, thus taking protected area staff off site and largely restricting the scope of such in institutions to managers rather than field agents.

A partial solution, of course, is to take social learning out into the field, and there is nobody better able to do so than researchers. Many scholars, particularly students, spend significant periods of time conducting field research in close conjunction with local conservation agents and guides, and are therefore perfectly placed to transfer

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knowledge and improve the scientific literacy of their partners. Researchers also have access to the latest advances in knowledge and theory within their chosen disciplines and geographical areas of interest, often the very information that is most useful to protected area staff. Field researchers can share their knowledge in a number of ways, from printing out relevant texts and depositing them (or digital files) in park offices and communal spaces (where copyright permits), to giving training sessions to collaborators and field teams. Perhaps most importantly, however, we should be doing all we can to ensure that the information generated in our research reaches those best placed to use it. We should be orally presenting research updates and preliminary results at the end of our fieldwork, and sending reports and publications back to collaborators as soon as they are available. This is essential if we want positive conservation outcomes to arise from our efforts.

Field researchers of course have their own priorities and it may be considered unfair to give them the responsibility for taking social learning into the field while there are few formal incentives for them to assume this function. Research institutions, funders, scientific publishers and conservation agencies all have a role to play in changing the incentive structure. Funders should be leading the way by favouring research proposals that include social learning elements as a core component of the research package, and scientific publishers should encourage or oblige contributing authors to do likewise via codes of conduct. The Code of Conduct for *Oryx*, for example, requires researchers to report the results of research back to relevant local and national organizations, and to ensure the participation of local partners with a view to enhancing local capacity to understand and manage ecosystems and populations (Anon., 2001). Research institutions, particularly universities, should encourage researchers to undertake social learning by offering appropriate training and funding and by nurturing external networks, and several successful examples of graduate school knowledge exchange programmes have been documented (Duchelle et al., 2009). Finally, practitioner organizations, be they NGOs or state protected area management agencies, must not content themselves with being passive recipients of the knowledge that researchers share; they must be proactive in insisting on both the appropriate training of local staff and the timely, comprehensible delivery of research findings.

It is up to researchers to recognize and value the rewards that delivering social learning in the field can bring. On a professional level it can provide valuable experience of teaching and training but more importantly it is an opportunity to improve the effectiveness of conservation practice. Most conservation scientists do what we do because we are passionate about conserving biodiversity: if we are to achieve our mission we must find ways to share our understanding of the world with those in a position to use this knowledge for practical conservation, and thereby maximize the benefits derived from our time in the field. Unfortunately, not all of us choose to do so.

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