

## Biophilia and the practice of science

While reading the editorial 'Biophilia and Chemiphilia'<sup>1</sup>, I was led to reflect on the passion that scientists develop for their subject of study, especially if the subject is a living organism. The study gets to be more than purely objective. This is a good thing, since like E. O. Wilson, one would realize that man is only part of a whole and our future also lies in understanding the intricate relationships that exist between life forms – simple as well as complex. Wilson studied ants but even the lowlier slime mould is fascinating.

While one studies a subject deeply and is interested in formulating a theory about its function in a milieu, to what extent can one succeed and strangely to what extent does one really wish to? Both these have been considered by Wilson in his book *The Diversity of Life*<sup>2</sup>. I am including a few passages from the book, as I feel many would identify with the situations that Wilson writes about so charmingly.

About the pursuit of research – No one has captured the metaformula of scientific research. The conversion is an art aided by a stroke of luck in minds set to receive them. We hunt outward and we hunt inward, and the value of the quarry on one side of that mental barrier is commensurate with the value of the quarry on the other side. Of this dual quality the great chemist Berzelius (another quote of whom is also incidentally mentioned in the editorial)<sup>1</sup> wrote in 1818 and for all time: 'All our theory is but a means of

consistently conceptualizing the inward processes of phenomena, and it is presumably and adequate when all scientifically known facts can be deduced from it. This mode of conceptualization can equally well be false and, unfortunately, presumably is so frequently, even though, at a certain period in the development of science, it may match the purpose just as well as a true theory. Experience is augmented, facts appear which do not agree with it, and one is forced to go in search of a new mode of conceptualization within which these facts can also be accommodated; and in this manner, no doubt, modes of conceptualization will be altered from age to age, as experience is broadened, and the complete truth may never be attained.'

On research aims – Our goal is to capture and label a process, perhaps a chemical reaction or behavioural pattern driving an ecological change, a new way of classifying energy flow, or a relation between predator and prey that preserves them both. . . .

On passionate research – An obsession that keeps forcing its way back because its very intractability makes it perversely pleasant, like an overly familiar melody intruding into the relaxed mind because it loves you and will not leave you.

. . . Solitude is better for weeding out ideas than for creating them. Genius is the summed production of the many with the names of the few attached for easy recall, unfairly so to other scientists.

About the extent to which one would like to succeed – The unknown and prodigious are drugs to the scientific imagination, stirring insatiable hunger with a single taste. In our hearts we hope we will never discover everything. We pray that we will never discover everything. We pray that there will always be a world like this one at whose edge I sat in darkness. The rainforest in its richness is one of the last repositories on earth of that timeless dream.

On similar lines, reflecting only on nature, Jim Corbett wrote ' . . . for the book of nature has no beginning as it has no end. Open the book where you will and at any point of your life, and if you have the desire to acquire knowledge, you will find it of intense interest, and no matter how long or how intently you study the pages, your interest will not flag for in nature there is no finality'<sup>3</sup>. In a sense, would this not reflect on all science as well?

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1. Balam, P., *Curr. Sci.*, 2004, **86**, 363–364.
  2. Wilson, E. O., *The Diversity of Life*, 1999.
  3. Corbett, J., *Jungle Lore*, 1953.
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## Writing research articles

The editorial on the style of writing research articles in English by Balam<sup>1</sup>, is highly educative and informative. It is a fact that, many a time, rejection of research articles by reviewers from the UK and USA based on poor English alone disheartens the authors. Due to lack in communication skills, good research work does not get space in highly reputed journals. Many developed countries have their research journals published in their national

languages. Scientists in such countries can report their work without having to worry too much about the language. Rejection of good articles due to poor language alone will be disastrous for research. However, it is necessary to provide compulsory instruction to research students on writing good scientific papers in English. Such instruction may also be provided to teachers in refresher/orientation courses.

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1. Balam, P., *Curr. Sci.*, 2004, **86**, 239–240.
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