

## Nurturing biodiversity skills: Need for coordinated research programmes

Increasing concern for the need to protect biodiversity in tropical forest ecosystems has been evident in recent years and efforts to support individual research projects have been creditable. All the same our understanding of biodiversity continues to be superficial and the extraordinary complexity of diverse ecosystems needs development of long-term protective strategies. Perhaps the need for coordinated programmes of research involving several institutions would not only enhance the pace of study, but also provide more information on diverse aspects related to biodiversity. One of the early enterprises in this direction relates to the Cauveri programme conducted by the Madras Science Foundation supported by the Ministry of Environment and Forests and which involved institutions all along the Cauveri in the Karnataka and Tamil Nadu regions. Besides institutional support, the project served to involve several young scientists from different disciplines. Again it is to the credit of Madhav Gadgil that he chose a team of teachers from various colleges in an effort to study some aspects of biodiversity in a few regions of the Western Ghats. We certainly need more such efforts to develop expertise among our upcoming scientists, since such dynamic working groups can

get involved in various aspects of animal-plant interactions such as taxonomy, ecology and biochemistry. It would then be possible to identify species of critical ecological or economic importance and such opportunities for integrated research will also enable maintenance of interaction between basic and applied biologists. A good example relates to bioprospecting in medicinal plants wherein, besides exploration of species, there would be opportunities for studies on DNA fingerprinting which is a very useful technique for genetic identification of plant species, enabling assessment of the most closely related varieties.

While it is always necessary to support odd individual projects such as those relating to Western and Eastern Ghats, one cannot overlook the fact that more intensive inter-institutional studies relating to various parts of the Western and Eastern Ghats such as Coorg, Anamalai, Kodaikanal and Palani Hills, Wynaad, Nilgris, Shevroy Hills, etc. appear to be of greater significance. Such studies, besides enabling a comparative approach, would be valuable as sources of long-term baseline information, and enable a close rapport between basic and applied biologists. Needless to say that the question of basic and applied sciences is

propping too often in project-oriented research. Basic research aims at the discovery of new knowledge and our increasing understanding of natural phenomena; it is not aimed at solving immediate problems. It was C. V. Raman who said, 'History of science has shown that real fundamental progress is always due to those who had ignored the boundaries of science and who treat science as a whole'.

Our universities and colleges being veritable mines for talent, increased expression of such talents would be forthcoming through adequate inter-institutional and interdisciplinary programmes. Needless to say that it is the All India Coordinated Programmes of the Indian Council of Agricultural Research (ICAR) on various crops that has led to the emergence of capable crop scientists in this country. Perhaps we should not allow such opportunities in biodiversity studies to slip away, forfeiting opportunities for multi-disciplinary coordinated research.

T. N. ANANTHAKRISHNAN

*'Dwaraka', Flat 6,  
22 Kamdar Nagar,  
Nungambakkam,  
Chennai 600 034, India*

---

## National licence to access Web of Science

I strongly support E. D. Jemmis' plea (*Curr. Sci.*, 2000, **79**, 1143) that there should be a national licence to access the Web of Science of the Institute for Scientific Information (ISI).

In the Asia-Pacific region, India is conspicuous by its absence from the list of subscribers. The list of current Web of Science subscribers in Asia-Pacific

region (that ISI is permitted to list) shows that China (1 subscriber), Hong Kong (6), Japan (5), Korea (2), Singapore (1), Taiwan (2) and Thailand (1) have academic, corporate or government institutions subscribing to this. Newly 200 sites in USA have access to this.

Some Indian agency, ministry or network of institution must take the lead so

that our researchers are not left behind in having access to scientific literature through ISI's Web of Science.

GANGAN PRATHAP

*E-12, NAL Quarters,  
Bangalore 560 017, India*

---

## Non performance and award

The editorial 'Discrimination' (*Curr. Sci.*, 2000, **79**, 1039-1040) raises some pertinent issues. Job security and the doctrine of seniority coupled with 'Peter

principle' (namely everyone rises to their level of incompetence) has brought the Indian system of administration including science to its nadir. Entry into the all

India services and even to prestigious scientific institutions like the Indian Institute of Science and IITs requires systematic hard work. But once appointed,

destiny is assured with or without performance. Promotional avenues in such organizations and scientific departments are moderate to excellent, though in a few organizations like the Geological Survey of India, more than a decade is needed to reach the next higher post, especially at JTS level. In the Indian set-up, performers are always at loggerheads and non-performers get plum postings and early promotions. Even the highest awards in India and Asia like Bhatnagar award and Magsaysay award, respectively, seldom result in accelerated promotion to the

awardee. A performer is always vulnerable to criticism. Therefore he suffers extensively, whereas a non-performer is engaged in extra-constitutional work. Hence, he is not subjected to scrutiny and gets early promotion. A non-performer is never punished. Regarding the concept of assessment, theoretically, all promotions are subjected to the assessment. Who will assess and what are the criteria of assessment are million dollar questions. Assessment of head of an institution on the basis of performance is a utopian idea. Who will dare to assess the head of

a research institute or cabinet secretary or secretary? Fine filter of discrimination is not possible in the Indian scenario. Lack of accountability is the crux of the problem. Each assignment of an individual should be subjected to the public scrutiny. Job security should be replaced with social security. Reward and punishment are essential for performance.

BRIJESH BARTHWAJ

C-203, Rohtas Apartment,  
Sector 9, Vikas Nagar,  
Lucknow 226 022, India

## Why no takers for a scientific career?

Gone are the days when young students used to opt for a scientific career out of interest and aptitude. The scientific education is now compared with engineering and other professional studies in terms of job opportunities, emoluments, future prospects, privileges and duration of studies. The comparison goes as follows:

(1) Prospective engineering graduates from good institutions are assured of jobs from various reputed companies through campus interviews even in their final year of the engineering program. Thus an engineer is theoretically settled in life after four years from the intermediate, whereas for a scientific research/teaching career, at least eight to nine years would be required before one is settled.

(2) An engineering graduate may start his career anywhere from Rs 10,000 to Rs 25,000 compared to Rs 12,000 to

Rs 15,000 with which a scientist would start at the end of his studies.

(3) Promotions in engineering services are frequent and common, and there is ample opportunity for an active and hard-working engineer to make progress to his satisfaction on the basis of his performance. Opportunities in the scientific world of teaching and research are not at all comparable. In these services the promotions are time-bound.

(4) Another disadvantage with the scientific career is that there is no accountability of the performance. Good work goes unrewarded and non-performance or poor performance goes unpunished.

(5) Still another disadvantage is that the scientific career is not result-oriented in the sense engineering service is. An engineer can show his merit and performance in a time-period in unity with his action and this period is small, whereas a

researcher/teacher would require a much longer period.

(6) In research odd requirements (sometimes normal ones too), poor maintenance of equipments, non-cooperation of supporting staff and red-tapism are great impending factors.

In spite of the above disadvantages and shortcomings, a small minority of talented young people do opt for a scientific career out of interest and aptitude. The only point to be considered is what should be our methods, system and policy to attract young persons to this career.

Y. K. GUPTA

J/5, Phase II,  
Shivalik Nagar, BHEL,  
Hardwar 249 403, India

## Earth's oldest crust

I read the Research news entitled 'The quest for earth's oldest crust' by A. V. Sankaran with interest (*Curr. Sci.*, 2000, **79**, 935-937). It is really informative and thought provoking. It enlightens about the world's oldest crust in many parts of the world, ranging from evidences of 4.28 b.y. continental crust in Western Australia to 4.03 b.y. oldest rock from Acasta gneisses. These ages are based on zircon dating by SHRIMP method. There is one slight error, the author mentions

that Rajasthan's oldest rock is amphibolite but the fact is that the oldest rock is Tonalite Trondhjemite gneisses near Jhammarkotra whose age is 3.3 b.y. (refs 1-3). The amphibolite which the author mentions in the text is intrusive in these gneisses which gives an age of 2.83 b.y. (ref. 1).

1. Gopalan, K., Macdougall, J. D., Roy, A. B. and Murali, A. V., *Precambrian Research*, 1990, **48**, 287-297.

3. Wiedenbeck, M. and Goswami, J. N., *Geochim. Cosmochim. Acta*, 1994, **58**, 2135-2141.

4. Roy, A. B. and Kroner, A., *Geo. Mag.*, 1996, **133**, 333-342.

VIVEK LAUL

Department of Geology,  
M.L. Sukhadia University,  
Udaipur 313 002, India