

tions by the authors who submitted the 16S rDNA sequence of *R. taiwanensis* in the BLAST database, we learnt about the article by Chen *et al.*<sup>3</sup> describing isolation and identification of *R. taiwanensis* from the root nodules of *Mimosa* species.

We realized that we had lagged behind in the race by not pursuing an intriguing observation immediately. We had made the novel observation in November 2000, while the two reports<sup>2,3</sup> claiming to be the first on the ability of the  $\beta$ -subclass of proteobacteria to nodulate legumes were published in June and September 2001, respectively.

Despite the large diversity of legumes (up to 18,000 species) and a great number

of them being able to form nodules, rhizobia of ~ 11,200 nodulating species are completely uncharacterized. Therefore, current taxonomy and phylogeny of rhizobia are based on isolates from the nodules of only 10% of the 750 legume genera. As India is considered a zone of mega biodiversity, studies on symbionts of the yet unexplored legumes may unravel the presence of new types of bacterial groups in their nodules. Nature has more surprises in store than we expect.

1. Young, J. P. W. and Haukka, K. E., *New Phytol.*, 1996, **133**, 87–94.
2. Moulin *et al.*, *Nature*, 2001, **411**, 948–950.

3. Chen, W. M. *et al.*, *Int. J. Syst. Evol. Bacteriol.*, 2001, **51**, 1729–1735.

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A. K. TRIPATHI

*School of Biotechnology,  
Faculty of Science,  
Banaras Hindu University,  
Varanasi 221 005, India  
e-mail: tripathianil@rediffmail.com*

## Youngest Toba Tuff

This is with reference to the correspondence ‘~ 74 ka Youngest Toba Tuff’ by A. R. Nambiar (*Curr. Sci.*, 2001, **81**, 334–335) regarding our paper ‘An occurrence of ~ 74 ka Youngest Toba Tephra from the Western Continental Margin of India’ (*Curr. Sci.*, 2001, **80**, 1322–1326). Our paper deals exclusively with Youngest Toba Tuff (YTT) of ~ 74 ka, whereas the symposium abstract by Nambiar *et al.* (PFS32, GIO – 1996, p. 93), makes mention of the overall Indonesian Arc Volcanic Tuff. It is well-known that the eruption of Toba occurred during ~ 74 ka, ~ 540 ka and ~ 840 ka, which are known as Youngest Toba Tuff (YTT), Middle Toba Tuff (MTT) and Oldest Toba Tuff (OTT) res-

pectively, and are together known as the Indonesian Arc Volcanic Tuff. Each Toba event is characterized by distinct chemical and isotopic characteristics. Nambiar *et al.* (1996) find that the tephra layers discovered in the Arabian Sea suggest the Indonesian Arc as the source. Since their report does not specifically mention the YTT, we did not take their report as the first one on YTT. Moreover they do not provide unambiguous evidence to show that the ash layer is from the Youngest Toba eruption of ~ 74 ka. We have cited all the relevant published information on YTT in our paper. Lastly, papers in refereed journals largely receive citation. Additionally, the discovery of Indonesian

Arc Volcanic material in the Indian Ocean was made by Ninkovich *et al.* (*Nature*, 1978, **276**, 574–577), and any subsequent publications only report the new occurrences.

J. N. PATTAN\*  
V. K. BANAKAR  
G. PARTHIBAN

*National Institute of Oceanography,  
Dona Paula,  
Goa 403 004, India  
\*For correspondence:  
e-mail: pattan@csnio.ren.nic.in*

## Polite and impolite

A. K. N. Reddy draws unnecessary distinctions between ‘impolite’ and ‘polite dissent’ (*Curr. Sci.*, 2001, **81**, 735–736).

We Indians are unable to discriminate between professional and personal criticism. Hence our unease in being impolite. Professional criticism should be as harsh as possible. Otherwise the

‘natural selection’, ‘competition’ and ‘diversity’ alluded to by Reddy, will simply not emerge.

The politeness we witness could, in part, arise from fear. However, given the lawless and shameless climate generally prevalent today, I suspect a simpler reason for the politeness in Indian science – just plain and simple lack of

confidence in one’s own professional abilities.

GAUTAM R. DESIRAJU

*School of Chemistry,  
University of Hyderabad,  
Hyderabad 560 046, India  
e-mail: desiraju@uohyd.ernet.in*