four different spacing and fertilizer treatments. Harvesting was made at the time of crop maturity and a total of 36 seeds samples were collected for fatty acid analysis. The average oil content of the studied samples was 51%. The fatty acid composition of Perilla seeds was dominated by omega-3 and omega-6, ranging from 24% to 54% and 8% to 19% respectively, followed by oleic acid (5–13%) and palmitic acid (4–9%). Other compounds present in small amounts were lauric, myristic and stearic acids. The results of the study showed that Perilla oil was similar to linseed oil. On the contrary, other fatty oils such as sesame, soya and safflower were rich in omega-6.

Functional foods, nutraceuticals, pharmaco-nutrients and dietary integrators are all terms used commonly for nutrients or nutrient-enriched foods that can prevent or treat diseases. The high content of omega-3 fatty acids, absence of mercury risk from fish sources and the beneficial effects of Perilla oil make it the best supplement to achieve balance in these valuable fatty acids. Perilla can help in diversifying the cropping system in the hills and can be a good crop for utilization of waste and under-utilized land of the hilly areas.


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We never wrote that a ‘geological narration constructed without rigorous evidence has been promoted to support a theory of cultural evolution in northwest India’, or that we suspect that one theory compared to another ‘had more emotional appeal and gained acceptance’ among Indian geologists. Or that previous work needs to ‘be revised or at the very least these geologists need to admit that their theory has been seriously challenged’. The sources of these comments are not our paper or communications, but are the comments of another individual on a personal blog, who has no connection to ourselves or our co-authors.

We protested this false attribution where and when it was made (i.e. the discussion group ‘India Archaeology’ and his caretaker S. Kalyanaraman quoted by Valdiya as his source of information). For example on 21 June 2012, Giosan wrote to both venues: ‘There is NO such text in our paper (…). There are a lot of glosses on our work, some informed and some tendentious, so please read the text as published by *PNAS* before attributing any quotes’. However, Valdiya still believes that Giosan et al. ‘accuse us (Indians) of having a dogmatic approach in constructing a narration on the Saraswati prompted purely “on emotional appeal”’. The Giosan et al. paper is a scientific study and does not pass any judgement on Indian science, within whose ranks we count our collaborators. Our admiration for the Indian culture and interest for the history of the subcontinent is long lived, and we have the utmost respect for the Indian civilization and its achievements.

We are sure that Valdiya agrees that authors are only responsible for their work and opinions, and not for claims and interpretations made by others. We hope that Valdiya’s misattribution of quotes and his resulting misrepresentation of our intent will be promptly corrected.

In the meantime, we are preparing a response addressing relevant scientific issues raised by Valdiya’s article and also invite him to send his critique to *PNAS*, the journal that originally published our work. We appreciate the considerable geological and archaeological evidence gathered by Indian colleagues in northwest India and look forward to the opportunity for discussions toward an improved understanding of the Holocene fluvial landscapes in the western Indo-Gangetic Plain and how these relate to past human settlement and subsistence.

4. http://tech.groups.yahoo.com/group/India-Archaeology/

SARASVATI

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Sarasvati

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