

## Professional doctorates and Ph D holders

This letter pertains to the correspondence entitled 'Role of Ph Ds in India<sup>1</sup> and a response to the same<sup>2</sup>. One issue discussed is employability of Ph D holders in industries.

Except in some of the applied scientific disciplines (e.g. chemical engineering), other science disciplines generally emphasize on building a strong theoretical framework in learners during their Ph D programmes. As the title *Philosophiae Doctor* (translated into English as 'Doctor of Philosophy') means, the learners understand several focal philosophies of science, learn to build sound hypotheses, set specific goals and incisive objectives, and realize meaningful outcomes<sup>3</sup>. (A sidebar would be that the term 'doctor' used in such contexts originally evolved (16th century Medieval Europe) to refer to those who teach (*doceō*, Latin, means 'I teach')<sup>4</sup>). This practice enables them to achieve a sense of clarity – both in thinking and in what they propose to do as a part of the project they intend to deal with. Clever and committed supervisors will additionally train their students in also orally communicating science clearly and convincingly. I say this particularly because the 'thesis' (the bound volume) examined by nominated examiners does not usually test oral communication capabilities of Ph D aspirants. (I am aware that a few universities have a *viva voce* examination in such contexts.)

Except in a few scientific disciplines (see the example cited before), most others

build on clarity of thinking and execution, further to acquiring advanced knowledge and the ability to analyse and discuss. Earning the doctor title can mean achieving necessary knowledge in the relevant, applied field as well, but I am not sure whether this can be accomplished in its truest sense.

Coming back to what I wanted to say in this context: the applied component of science is usually not value-added in a majority of Ph D theses, because the Ph D title reinforces building a sound, extensive and intensive knowledge base supported by the skill to analyse and interpret. When that is the case, the opportunities for Ph D holders being recruited by industries are certainly remote. No industry will prefer a person who knows the philosophy of science.

One way out would be to introduce an alternate model at this level of learning. I am not aware if any of the newly established universities in India have launched this model. Historically, this model was first introduced in America decades ago; several other nations are presently following the same. I refer here to offering titles, generically called the professional doctorates. Academically, professional doctorate work will necessarily include a 20–25,000 word thesis component, but the learner will be required to complete some to several coursework subjects, as deemed appropriate by the university concerned. The most critical aspect of the thesis component is that it will be an original research investigation, similar to

Ph D work, but usually identified and developed from an applied scientific domain. Certainly a professional doctorate thesis cannot be seen as a desktop or library dissertation.

In terms of 'quality', a professional doctorate holder is never accepted as equal to a Ph D holder, because a person qualifying a professional doctorate never achieves the principal purpose underpinning Ph D work, such as conceptualizing and establishing a new point, thus far unknown to science, following a clear epistemology and constructing it on established scientific paradigms, e.g. constructivism. The brighter side of the story is that professional doctorates would be preferred by industries, since these men and women will possess the specific advanced knowledge and skills necessary in applied scientific contexts. More attractively, they too are 'doctors' similar to Ph D holders.

1. Qureshi, A. A. and Syed, A., *Curr. Sci.*, 2016, **111**, 1437–1438.
2. Mahanty, A., *Curr. Sci.*, 2016, **111**, 1438.
3. Raman, A., *Curr. Sci.*, 2008, **95**, 590–593.
4. Verger, J. and Metzler, J. B., *Lexikon des Mittelalters*, Stuttgart, 1999, vol. 3, pp. 1155–1156; vol. 5, pp. 1957–1958.

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## Opportunistic feeding behaviour of *Xylophis perroteti* in Emerald Valley, Nilgiris, Tamil Nadu, India

Among Indian snakes, ophiophagy behaviour is found in the king cobra (*Ophiophagus hannah*) which regularly feeds on other snakes, and this has also been recorded in many other species like *Bungarus fasciatus*, *Bungarus caeruleus* and *Calliophis nigrescens*<sup>1</sup>. This note documents predation by the Striped narrow-headed snake, *Xylophis perroteti* on Perrotet's shieldtail snake, *Plectrurus perrotetii*. Both are endemic species and

common in the Nilgiris<sup>2,3</sup>. A few studies have been conducted on general biology of this species<sup>2,4,5</sup>. While carrying out survey during July 2014 at 7.15 am in Emerald Valley (11°21'16.28"N and 76°35'59.95"E), Nilgiris, Tamil Nadu, India, we observed predation by *X. perroteti* on *P. perrotetii*. *P. perrotetii* (visually measured – total length 160 mm) was swallowed within about 43 min. We measured the length and counted the

scale of *X. perroteti* and determined sex based on scale counting and absence of hemipenis<sup>2,3</sup>. *X. perroteti* was identified as a female (dorsal 13:13:13, ventral 14, sub-caudal 14 and total length 462 mm). Whitaker and Captain<sup>3</sup> have reported that this species feeds exclusively on earthworms. However, the present observation indicates that this species may feed opportunistically on other species of snakes. Therefore the present study is



**Figure 1.** *Xylophis perroteti* feeding on *Plectrurus perrotetii*.

important for understanding the feeding ecology of this endemic snake species.

1. Vijayaraghavan, B., *400 Questions Answered about Snakes, with Special Reference to Snakes in India*, Chennai Snake Park Trust, Chennai, 2010, p. 230.
2. Smith, M. A., *The Fauna of British India. Reptiles and Amphibia Vol. III. Serpentes*, Taylor and Francis, London, 1943, p. 583.
3. Whitaker, R. and Captain, A., *Snakes of India: The Field Guide*, Draco Books, Chennai, 2004, p. 481.
4. Wall, F., *J. Bombay Nat. Hist. Soc.*, 1919, **26**, 552–584.

5. Santhoshkumar, P. and Kannan, P., *Curr. Sci.*, 2016, **110**(10), 1901–1903.

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## Data analytics: India needs an agency for health data

India has no centralized body for disseminating and maintaining health data that itself is capable to analyse its health data. I propose the formation of a national health data agency (HDA) to provide an efficient and alternative system to counter the existing bureaucratic systems. HDA would necessarily utilize the underlying framework of performing three key tasks: collection, standardization, and analysis of health data across several domains (e.g. government, private, personal, etc.) and make it open to the public.

Lack of health datasets has hindered India's public health research, resulting into deep dejection of citizen centric policy and regulatory compliances. Health

data mostly originate from different heterogeneous bodies, reportedly as gross averages; sometimes these are incomplete, inaccurate, or dependent on silos-based practising methodologies.

A central HDA should coordinate with existing data-holders, such as the Ministry of Health and Family Welfare, AYUSH, Department of Health Research, National Rural Health Mission, National Health Portal of India, and with state, private or personal health care providers. This would help boost the development process of new health business models and other healthcare innovations<sup>1</sup>.

This agency would assist India to further expand its existing health infrastruc-

ture and to advance the adaptability, affordability and availability of its health supply. The envisaged framework for measuring, reporting, and verification (MRV) is equally vital to India's obligations towards the 'health right' of its people.

1. Tongia, R., Rai, V. and Shrimali, G., *Nature*, 2017, **541**, 30; doi:10.1038/541030d

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