(http://scholarlyoa.com/publishers/), which monitor these publishers.

Beall's journey to this world of predatory publishers started when he received a number of e-mails from new journals, asking him to submit articles or join their editorial boards, as is probably a routine nowadays with most of the researchers. He was suspicious about these journals, because most of the e-mails contained numerous grammatical errors[2,3] and a little research spilled the beans about their origin. He was curious to find out more about this new publishing business and thus became the watchdog for what he describes as 'potential, possible or probable predatory scholarly open-access publishers', listing and scrutinizing them on his blog[2,3]. His efforts are helpful for the whole research community and therefore, his blog is followed by most of the libraries and researchers throughout the world[3].

Thus, it is clear that the OA practice is misused by a number of predatory publishers who exploit the whole process to make money by publishing anything, without following the standard procedures[2–4]. This is dangerous for the research community and thus, concrete efforts are required from the authors to make sure that they are not caught in this practice. However, there are some authors who deliberately indulge in such practice by taking unethical shortcuts to publish low standard work, which is mostly plagiarized[2]. Thus, a rigorous system is required to check such practices in research.

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Where do Indian neuroscientists publish their best research?

In these pages it has been reported that Indian chemists[1], and researchers in general[2], tend to publish their 'best work' in foreign journals. The share of 'best' work between international journals and Indian national journals is best computed using an exergy parameter introduced recently[3]. Exergy, *X*, is the second-order energy-like term obtained from the product of impact ($i = C/P$, which is a quality term) and citations *C* (a term that has both quality and quantity attributes) and is

Table 1. In exergy terms, international journals took the lion's share of 'best' Indian research in neuroscience from 1992 to 2005

Journal	Country	Papers *P*	Citations *C*	Impact *i*	Journal-wise exergy *X*	Country-wise exergy *X*	International versus Indian exergy *X*	Percentage share of exergy
Acta Neurochirurgica	Austria	45	249	5.53	1377.80	1377.80		
Acta Neurologica Scandinavica	Denmark	66	308	4.67	1437.33	1437.33		
Neuroradiology	Germany	44	228	5.18	1181.45	3428.65		
Psychopharmacology		20	212	10.60	2247.20			
Neuroscience Letters	Ireland	71	260	3.66	952.11	952.11		
Brain Research	The	89	734	8.25	6053.44			
Journal of Neurological Sciences	Netherlands	244	493	2.02	996.10	8286.24		
European Journal of Pharmacology		36	211	5.86	1236.69			
British Journal of Neurosurgery	UK	150	539	3.59	1936.81			
Journal of Neurochemistry		277	384	1.39	532.33	3373.29		
Journal of Neurology, Neurosurgery & Psychiatry		58	229	3.95	904.16		64273.80	98.74
Neurology	USA	29	415	14.31	5938.79			
Nature Genetics		5	323	64.60	20865.80			
Journal of Neurosurgery		82	311	3.79	1179.52			
Neurosurgery		36	310	8.61	2669.44			
American Journal of Neuroradiology		37	260	7.03	1827.03	45418.37		
Brain Research Bulletin		34	257	7.56	1942.62			
Epilepsia		165	235	1.42	334.70			
Neuron		6	233	38.83	9048.17			
Surgical Neurology		91	229	2.52	576.27			
IEEE Transactions on Neural Network		48	223	4.65	1036.02			
Neurology India	India	1285	475	0.37	175.58			
Indian Journal of Experimental Biology		460	342	0.74	254.27	820.53	820.53	1.26
Indian Journal of Medical Research		160	226	1.41	319.23			
Journal of Association for Physicians in India		696	223	0.32	71.45			

arguably the best single scalar indicator of scientific effort[3].

A very recent bibliometric study[4] of neuroscience research in India between 1992 and 2005 showed that papers originating from international collaborations are cited more often. It is tempting to revisit table 1 of the same study[4] using the exergy criterion to see if Indian scientists published their 'best' research in international journals. If P is the number of papers and C the number of citations, the exergy value[3] is computed as $X = (C/P) \times C$. The total $\sum X$ for international and Indian journals are then added separately and compared. Table 1 here shows that for the 25 journals reported in the original table 1 of Shahabuddin[4], 98.74% of the exergy value has appeared in international journals leaving a paltry share of 1.26% for the Indian journals.

The best research in neuroscience from India is increasingly appearing in international journals. A worrying issue is that Indian journals have not been able to cope in this highly competitive environment.

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Too much of 'botanization' is bad

Botanical excursion or field study – botanization – at the undergraduate (UG) and postgraduate (PG) levels is essential for practical education in botany. Through field studies, students get acquainted with live specimens in the field, understand the various forms and features of plants and their diverse natural habitats. It helps raise their interest in the subject and love for nature. During botanical excursions, students tend to collect more samples than required for their study and preservation in the herbarium. One recent experience prompted me to write this correspondence. While I was conducting B Sc Honours practical examination in a college in Kolkata, one co-examiner proudly communicated me that 'bagfuls' of *Equisetum* species (*E. diffusum* D. Don, *E. ramosissimum* Desf.) were recently collected by her and accompanying students from a botanical excursion to Sikkim. I immediately reacted, saying 'you did an injustice to nature going against your classroom lessons on conservation of plants as they are uncommon plants and in some places their population is now dwindling due to such over-collection'.

Worldwide about 25 species of *Equisetum* L. (the generic name derived from equus = horse, seta = bristle; common name horsetail, resembling it to some extent) are reported. Of these six species occur in India, mainly in the Himalaya[1–4]. They have some medicinal uses[1]. Their population is shrinking in India due to excessive institutional and commercial collections. *E. ramosissimum* and *E. hymale* L. are already reported as rare/uncommon in western Himalaya[4].

My experience during field trips over the past three decades has taught me that students, from numerous plants collected by them, make only a few herbarium specimens (the required number as mentioned in the syllabus). The rest is thrown away as are the herbarium specimens after the examination. This leads to wastage of many important collections. To prevent this, students should be encouraged to donate the specimens to the herbarium of their alma mater to fulfil the objectives of herbarium methods.

Here I emphasize on judicious collection of plants, in compliance with the classroom lessons regarding conservation of plants. Indoor teaching and outdoor activities should not be contradictory. Plants need to be collected during field studies, but not indiscriminately destroying rare and uncommon plants. To learn the herbarium methods at UG and PG levels only a few (about 10–15) plant specimens may be collected by each student, from among the abundant plants or weeds only, and this should be accordingly mentioned in the syllabi. Similarly, for work in the practical class, species which are abundant should be included and the uncommon ones, e.g. *Equisetum* species, have to be excluded from the syllabi. Rare and uncommon plants may be recorded in field notes and photographs, and not through collection of live specimens. Modern-day cameras can clearly show the macro-morphological features.

Our aim is to understand plants and not to destroy them. Under the proper guidance of a teacher, the dwindling members of biodiversity can be saved from further loss or extinction. It is alarming that, according to the International Union for Conservation of Nature and Natural Resources, the current species extinction rate is between 1000 and 10,000 times higher than it would naturally be[5]. No doubt botanization is good, but too much of it must be avoided.

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