

Table 1. Space allocation for S&T items by newspapers

Newspaper	Items		Space occupied	
	Number	%	sq. cm	%
<i>The Times of India</i>	1,453	27.0	189,554	19.2
<i>The Asian Age</i>	409	7.6	74,567	7.6
<i>The Statesman</i>	211	3.9	61,182	6.2
<i>DNA</i>	238	4.4	55,203	5.6
<i>Mail Today</i>	162	3.0	53,229	5.4
<i>The Free Press Journal</i>	361	6.7	52,726	5.3
<i>The Financial Express</i>	251	4.6	50,840	5.2
<i>Hindustan Times</i>	246	4.7	50,752	5.1
<i>The Indian Express</i>	219	4.1	45,144	4.6
<i>The Hindu</i>	214	4.0	43,351	4.4
<i>The Pioneer</i>	113	2.1	34,532	3.5
<i>The Tribune</i>	202	3.8	31,535	3.2
<i>Deccan Herald</i>	299	5.6	29,207	3.0
<i>Metro Now</i>	129	2.4	28,739	2.9
<i>Mumbai Mirror</i>	125	2.3	26,945	2.7
<i>The Hindu Business Line</i>	128	2.4	24,167	2.4
<i>The Economic Times</i>	193	3.5	22,528	2.3
<i>Mint</i>	50	0.9	20,095	2.0
<i>Deccan Chronicle</i>	83	1.5	16,609	1.7
<i>The Telegraph</i>	47	0.8	16,046	1.6
<i>Business Standard</i>	56	1.0	15,576	1.6
<i>The Political and Business Daily</i>	56	1.0	10,256	1.0
Others (15)*	140	2.6	33,751	3.4
Total	5,385	99.9	986,534	99.9

**The Assam Tribune, Bangalore Mirror, The Financial World, The New Indian Express, Central Chronicle, Daily Excelsior, Financial Chronicle, Greater Kashmir, The Hitavada, Kashmir Times, Mid Day, National Herald, The Navhind Times, The Sentinel and The Shillong Times.*

23% from other countries. The proportion of cited foreign sources was significantly higher than Indian sources for topics in environment, space S&T and astronomy. The indigenous news sources were dominated by Press Trust of India, Indo-Asian News Service and Asian News International, whereas the leading foreign sources were Reuters (UK), Associated Press (USA) and New York Times (USA).

About 78% of the items mentioned the workplace of the research reported. Re-

search originating from 70 countries was featured in these newspapers. However, the most dominating countries were USA (~41%), India (~16%), UK (~15%) and Australia (4%). These four countries accounted for 76% of the items that had referred to the place of research. Other major countries were Germany, Canada and Japan (each ~2%), and France, Switzerland, Sweden and China (each 1%).

Among all the items, 24% incorporated journal citations. Out of these, the maximum items (62%) pertained to

health, including life sciences followed by environment (7.7%), psychology (6.7%) and astronomy (4.4%). A few dominant cited journals were *Nature*, *Science*, *Proceedings of the National Academy of Sciences of the United States of America*, *New Scientist*, *PLoS*, *The Lancet*, *Journal of the American Medical Association*, *Archives of Internal Medicine* and *New England Journal of Medicine*.

The findings of this study suggest that S&T coverage is not the priority of English-language Indian newspapers. Even celebration of science, like the Shanti Swarup Bhatnagar Prize distribution ceremony, is absent from science news. Under such a scenario, the decline of interest in science among students should not be surprising. The coverage of S&T needs to be amply visible to the public to register its presence in the realm of social efforts. Thus, there is a case for more science in newspapers. It need not necessarily be a new research finding; it may be an issue of local or national interest on water quality, food science, *Bt* brinjal, house-building or health care. An exposure to the science behind anything that the common man encounters in quotidian life would help shape his attitude towards science besides making him a better-informed citizen.

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Ban on animal dissection a bane to life science education

A University Grants Commission (UGC) Core Expert Committee was set up in 2010 to consider 'discontinuation of dissection of animals in zoology or life science education in Indian universities and colleges'. Recently, UGC called for a ban on dissection, which sparked a controversy. The decision was greeted with dismay by researchers in life sciences.

A ban on dissection, according to UGC, may help in several ways. A huge amount is spent towards animal buying and handling. A ban on dissection may therefore help in cost-cutting. The decision may also address non-ethical issues being practised, for example, the unhealthy nexus between the suppliers and academic institutions.

The UGC Committee also recommends the use of digital models as an alternative to dissection, similar to Western education. The decision shall greatly affect the higher education system prevailing in India, especially basic training in the life science. Moreover, the quality of education is far below the international standards. It is essential for any life sciences

student to learn from practical sessions, dissecting in laboratories to have a better understanding of the subject, which cannot be replaced by virtual animal models. Virtual classes are not as effective as classroom studies, where students and teachers can interact.

It is important to note that most of the students pursuing a B Sc degree do not opt for science out of interest, but are those who fail to secure admission in a professional course like engineering or medicine. These students find theory classes difficult but cherish practical classes, which also enthuse them to learn. For example, several eminent scientists switched to other branches of science on the basis of interest generated while they were undergraduates. It is therefore

essential to restore the interest of students. Secondly, undergraduate learning strengthens the foundation for further studies. Training at the undergraduate level is essential. At later stages, it is difficult to develop and learn skills for handling animals or perform dissections. But few academicians argue that dissection is essential only at the postgraduate level.

Moreover, the animals used for dissection in zoology departments are generally bred in the university animal houses, a way of conservation. Not all animals dissected are endangered. There are only a few species on which dissection is performed. But those setting the guidelines opine that dissection has led to extinction of species, which is not true. To address

this problem, colleges and universities can be encouraged to start breeding centres.

There are other factors contributing to extinction. Illegal animal killing or hunting is prevalent in different parts of the country. In short, the current ban on dissections may not help solve the existing problem, but may affect the higher education system in India.

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Some lianas in Tripura, India, demand urgent conservation efforts

Blessed with curious growth form, the lianas occupy an important position in the forest ecosystems of tropical areas. They are woody climbers, characterized by at least some secondary wood in their vasculature. After germination and rooting, they ascend to the forest canopy supported by other arboreal tree species. They have special adaptive features such as twining stems, tendrils, hooks, thorns and spines which act as specialized organs of attachment to their host plants. By attaching to large trees they form arboreal

paths for monkeys and other primates. They are also being used in cultural practices of daily livelihood of the local tribes dwelling in the forest villages.

In an ongoing study on the lianas of Tripura, we surveyed the Jampui hill ranges, Serhmun, Damcherra, Kanchanpur, Jolai and Hmuntha under North District, and Chawmanu, Saikar, Laljuri, Koramcherra and Kunkicherra under Dhalai District. About 30 liana species have been collected and enumerated so far from these areas. It was observed that the species richness and abundance of lianas is diminishing, mostly due to anthropogenic activities. Three species, viz. *Beaumontia grandiflora* (Roxb.) Wall. (Apocynaceae), *Parabarium micranthum* (A.DC.) Pierre (Apocynaceae) and *Uncaria sessilifructus* Roxb. (Rubiaceae) were rarely found in the field and hardly traced in their habitat. In Tripura, the practice of jhum cultivation, rubber and supari (areca nut) plantation, and tea and pineapple cultivation are the main sources of livelihood for the rural and tribal people. As a result, the undisturbed forest areas are gradually being destroyed. Extension of villages and agricultural fields was also noticed. The impact of disturbed habitats on the population of supporting plant species like *Shorea robusta* Gaertn., *Artocarpus heterophyllus* Lamk., *Ficus religiosa* L., *Ficus* sp., *Syzygium* sp., etc. also reflects on the population of lianas, as the distribution

and abundance of lianas are directly influenced by the host trees^{1,2}. With the destruction of one tree species, at least 2–3 lianas species are also being wiped out from the area (Figure 1). Therefore, the direct and indirect destruction of species has become an alarming threat for lianas growing in the state. Hence, the conservation of lianas and their host species is a matter of concern, and a proper conservation policy involving local people is the need of the hour.

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Figure 1. Burnt lianas and their supporting species for jhum cultivation.