

## In this issue

### Lead and cadmium in soft plastic toys

Abhay Kumar and Prashant Pastore report (**page 818**) presence of lead and cadmium in soft plastic toys. They ascertain the health risk of these toys pose to children on account of high heavy metal content in them. The laboratory tests revealed that out of 111 toy samples tested, 77 were found to be made of PVC and 88 samples were found to contain lead and cadmium in varying concentrations.

The article widely accounts the secondary literature to establish toxicity and health impact of lead and cadmium and the prevailing debate on norms and standardization. The authors then highlight the seriousness of heavy metals in plastic toys as a toxic pathway for a very vulnerable section of the population to highlight the problem of missing enforceable regulation in India. The study itself was pitched at the highest level, with it being raised in the upper house of Parliament for seeking status of regulation of heavy metal in toys, and also at multiple platforms by Toxics Link for advocacy.

### Did bio-shields affect tsunami inundation?

The popular belief that bio-shields reduced the inundation caused by the tsunami in December 2004 is questioned (**page 831**). Satellite imagery was used to measure Normalized Difference Vegetation Index (NDVI) values, an index of green vegetation, between the coast and places up to

which inundation had occurred. Distances of inundation did not vary significantly with NDVI values leading to the conclusion that vegetation had not affected inundation significantly.



Bhalla uses data from 49 inundation points along the Coromandel coast between Kalapet, North of Puducherry and Vedaraniyam in Nagapattinam. The study raises concerns about modification of coastal sand dune habitats through widespread plantations and argues that coastal dunes probably provide the most effective natural barrier against such disasters. Coastal dune formations are integral to the livelihood of traditional fishing communities and provide a range of goods and services including ground water recharge and nesting habitat for species among which are sea turtles, chiefly olive ridleys (*Lepidochelys olivacea*) and ghost crabs (*Ocypode* sp.).

### The smallest frog from India

Frogs live almost everywhere – from sizzling deserts to freezing tundra, from rainforest canopies (*Philautus nerostagona*) to 5 m deep under the

soil (*Nasikabatrachus sahyadrensis*). Species of extreme sizes, either miniature or giant, often evoke public interest and scientific attention. In this issue, Biju and colleagues (**page 854**) describe a new frog from the Western Ghats, with a smaller adult size than any previously described frog species in India. With adult males of barely 10 mm in length, *Nyctibatrachus minimus* is the smallest of all known Indian land vertebrates and competes with miniature frogs in other parts of the world, including Cuba, the Amazon and Borneo. Although the new species has clear morphological features and ecological adaptations that distinguish it from all other frogs, scientists and



field biologists until now probably misidentified it as a juvenile of known *Nyctibatrachus* species. It is likely that more miniature diversity remains concealed in the forests of the Indian subcontinent. The use of molecular data in this paper also demonstrates the power of this technique in facilitating discovery of such hidden diversity. The incessant descriptions of new frogs from the Western Ghats highlight the area as one of the global amphibian hotspots.