

Fungal biodiversity: Putting our house in order

Microbial bio-diversity has been on the agenda of most governments since the Convention on Biological Diversity came into force in December 1993. No inventory of microbial species of the world exists and it is estimated that less than 5% of the earth's species are known¹. The situation deepens further due to the declining number of microbial systematists. Nations are developing 'National action plans'. Some countries where work was already in progress looking to the future need and those who have realized the tremendous potentiality and future of fungi have taken a lead. But, we are not serious though we know the potentialities of fungi. Our only National Herbarium and Culture collection (HCIO) is old and facing specialist/manpower crisis, low funds and poor expansion, not in keeping with the need of this megabiodiversity country. We have established IMTECH and NBAIM but without mycologists/specialists of various groups who will map/inventorize fungal diversity, if Hawksworth's criterion² is taken as a yardstick to fathom fungal diversity in its true sense. We have several funding agencies such as ICAR, CSIR, ICFRE, ICMR, DST, DBT, MoEF but these are creating new centres, like the two mentioned above, with good sophisticated instruments but without specialist staff to run these in-

struments and above all without 'fungal taxonomists' who are basically needed for such centres. We know the excellent record of performance of CBS, Utrecht and IMI, Surrey and others who have delivered their best services globally.

The experts/taxonomists are retiring or have retired and their posts are either abolished or replaced by pseudo-biotechnologists and microbiologists or even by some non-biologists. We have abolished basic courses of biology/fundamentals of biology in the name of upgrading the courses, with the result, the country has gradually lost taxonomic expertise/manpower. The herbaria/culture collection became deserted. At present we have no training centre, especially for taxonomy, as capacity building centre(s). Some agencies provide funds for refresher courses but we know the fate of these refresher courses and the so-called higher training. There is an urgent need for establishing 'school of fungal taxonomy' as 'capacity building centre' with specialists of particular groups. There is need for strengthening National Herbarium/Culture Collection/HCIO, Agarkar Institute, IMTECH, NBAIM, and other Herbaria and Culture Collections and Institutes which have made contributions to various groups of mycology in India. Secondary metabolites and mushrooms are a source

of foreign currency and should be sincerely taken care of. A single metabolite like penicillin, cyclosporine can give enough return to the Government. Therefore, liberal funding is required to harvest the maximum benefit in minimum time period. A team of experts should be given the responsibility of mapping fungal diversity in collaboration with experts of various groups worldwide, similar to the Costa Rican pattern.

In conclusion, to keep our house in order we have to strengthen the National herbaria/culture collections, including appointment of specialist fungal taxonomists of various groups and liberal funding without any red tape.

1. Hawksworth, D. L., Minter, D. W., Kinsey, and Cannon, P. F., In *Tropical Mycology* (eds Janardhanan, K. K. *et al.*), Oxford & IBH, New Delhi, 1997, pp. 29–50.
2. Hawksworth, D. L. and Colwell, R., *Inoculum*, 1994, **44**, 4–6.

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