# In this issue

### Identifying Gifted Children

*Protocols and processes*

The National Education Policy points out the need to identify gifted children and the necessity of nurturing, fostering and developing their talents and skills. The Policy points out what needs to done, a deadline for achieving it and why, but not how. That is left to the concerned organisations and individuals.

Anita Kurup from NIAS Bengaluru has been tackling the problem for some years now. In a General Article in this issue, she gives a brief account of the protocols that her group has tested, and found to be useful to identify and mentor gifted children.

India has a wide diversity of populations, languages, cultures, agroclimatic zones and occupations with widely varying incomes. It is also in a state of economic transition and is labelled an emerging economy. If the protocols for identifying and mentoring gifted children work in such a country, they can be applicable to many others. Educationists and stakeholders across the world would, therefore, do well to examine the procedures provided in the article on **page 472**.

### Artificial Pollination

*Through electrostatic attraction*

Pollinators hold the key to agricultural productivity: more than 75% of crop production in the world depends on them. But pollinators are also afflicted by epidemics. And the increasing use of pesticides in agriculture plays havoc with pollinator populations also. The threat of crop failure due to lack of adequate pollinators looms large. It is time to be prepared for such an eventuality.

In this issue, you will read an article, where researchers from the Kerala Agricultural University and an affiliated college tackle the problem. They explore various strategies including manual pollination and then, taking off from the physics of the mechanisms of pollination by bees, suggest the development of technologies for artificial pollination based on electrostatic methods. The method, they argue, can increase fruit yield by up to three times and double the number of seeds.

Turn to **page 484** to read the Review Article that agriculturists cannot afford to miss.

### COVID-19 Mortality

*Comparing countries*

The team from the NCCS Pune and the Chennai Mathematical Institute that brought to notice the low COVID-19 mortality in urban slums in India – despite overcrowding and insanitary conditions – is now back with data on COVID mortality from around the world. 'Disease prevalence and case fatality ratio during the COVID-19 pandemic show a contrasting opposite trend in the low- and low–middle income countries when compared to that of the high income countries', they point out.

Is it because of the higher prevalence of autoimmune disorders in high income countries – possibly caused by extremely rigorous hygiene and sanitation practices? Or are there other reasons? The researchers collected data on 25 parameters that may possibly be involved to check for correlations. They find that the apparent correlation between GDP and COVID-19 case fatality ratio can be explained by parameters that are more directly involved.

Curious? Read the Research Article on **page 501** in this issue.

### Wintering Harriers

*In southern Tamil Nadu*

Harriers are birds of prey that diversified a few million years ago along with the expansion of grasslands. Six migratory species are found in India. However their distribution in Tamil Nadu was not well documented. Researchers from the Ashoka Trust for Research in Ecology and the Environment, Bengaluru surveyed grassland-savannah habitats in the southern districts of Tirunelveli and Thoothukudi.

They started by preparing a grasslands map, and visiting the locations to separate crops and grasslands. They also analysed satellite imageries using support vector machine algorithms, trained by ground level data, and predicted the grasslands in the entire area.

They then visited the grasslands to locate potential harrier roosting locations. The birds tend to fly in circles over roosting locations at dusk. Thus they could identify 16 roosting sites in an area of 3500 square kilometres. Three species of harriers included the Pallid harrier which is classified as near-threatened. While the population of Montagu harriers, as estimated from the count of males, seemed to be stable, during the four years of observations, their results suggest that Pallid harrier and Marsh harrier counts are decreasing in the two districts.

One of the reasons for the decline of the wintering harriers in southern Tamil Nadu could be changes in land use. Out of the 16 roosting sites initially identified, 3 are already lost due to the planting of eucalyptus saplings, windmill establishment and intensive grazing. Since most roosting sites are on private land, more sites for roosting will disappear soon.

A system to protect the biodiversity of grasslands, similar to the one adopted to save wetlands, is perhaps necessary to conserve these birds that are at the top of the food pyramid, say the researchers in a Research Article on **page 553** in this issue.

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