

A treasure trove from the world of orchids

In tropical North-East, orchid man AN Rao finds 35 new varieties

USHA RAI

AN Rao, retired director of the Centre for Orchid Gene Conservation of Eastern Himalayan Region, Manipur, is making it to the record books for discovering 35 new species of orchids, the maximum number discovered by an individual in the country.

All the discoveries are new to the science of orchids in the world and will help enhance the medicinal and floral value of these exquisite blooms from India. While authorship of 20 of these new finds was by Rao individually, 15 discoveries were in conjunction with others. All the new finds are from North-Eastern Himalayas.

Recipient of national and international awards for his contribution to Indian Orchidology, including the Dr TM Hynniewta Biodiversity Gold Medal in 2014 and the Suraj Prakash Vij Memorial Award in 2016, Rao says the discovery of each new species is important because, with the rampant destruction of forests, many varieties are becoming extinct. There is need to treasure each new discovery as well as the old, many of which were used in ayurvedic medicines down the ages, he points out.

Orchids have been known to man-

kind since the Vedic period. In the Rig Veda and the Atharva Veda (1500- 800 BC) two orchids (*Rasna - Vanda tessallata*; *Sanjeevani - Flickingeria macraei*) have been mentioned as medicinally important. Subsequently, *Sushruta Samhita* (by Sushruta) and *Charaka Samhita* (by Charak) listed about a dozen orchid plants used in Ayurveda.

Used in ayurveda

Four varieties of orchids — *Jeevak (Dienia muscifera)*, *Rishabhak (Crepidium acuminatum)*, *Riddhi (Habeneria spp. & Eulophia nuda)* and *Vridhhi (Habeneria sp.)* are used in the 'Astavarga' group of drugs in ayurvedic medicines. Other orchid species being used in various ayurvedic medicines are *Jeevanti (Flickingeria macraei)*, *Rasna (Vanda tessellata)*, *Munjatak (Orchis latifolia)* and *Amarkand (Eulophia nuda)*.

Dendrobium species are used in a Chinese tonic which has aphrodisiac properties.

The traditional tribal medicinal practitioners of the North-East also use wild orchids to treat various diseases.

Rao points out that the new orchids discovered from the wild could have qualities that would help research scientists of the drug and pharmaceutical industries find cures for cancer, AIDS and cardiac problems.

They could also provide material for plant breeding and developing new hybrids of commercial value as pot plants or for production of cut plants.

Orchids also have cultural and religious importance in various parts of the world. In India, the fox-tail orchid *Rhynchosstylis retusa*, popularly known as 'Kopoh phool' in Assam, has

great cultural significance. The fragrant, beautiful rose-purple coloured orchid is traditionally worn by women dancers during the Bihu festival.

Similarly, the bright golden flowered inflorescence of *Dendrobium hookerianum* is considered holy and used by Buddhists to decorate their Gompas.

Orchids also have great importance in the national and international market for their ornamental appeal.

They are among the top five cut flowers in demand in international markets for their long shelf life, luxuriant colours and shapes. However, says Rao, there is greater demand for the hybrid orchids, developed by cross-breeding among the natural species. Thailand and Singapore lead the multi-million dollar market, exporting hybrid cut flowers and plants.

It is estimated that there are 25,000 varieties of naturally occurring orchids

in the world. Of these, 1,350 are in India and 960 of them are in the North-East. Arunachal Pradesh has 577 species of orchids, Sikkim 561, Meghalaya 380, Nagaland 387, Manipur 314, Mizoram 253, Assam 231 and Tripura just 39 species. Of the 960 orchid species found in the North-East, about 400 species are ornamental and have commercial importance, says Rao.

Lost and found

Many orchid species were almost lost to mankind. The *Vanda Coerulea*, popularly known as blue Vanda because of its delicate blue flowers, was discovered in Meghalaya during British rule. So many of these plants were taken to England that they almost went into extinction here, and they could not survive in the climate there. Fortunately the flower was found in sparse distribution in Tirap district of Arunachal Pradesh.

Another popular orchid, *paphiopedilum Fairieanum*, commonly known as ladies slippers because of its shape, disappeared in the 1890s and a London firm announced a reward of £1,000 for its rediscovery. A few years later, during a survey in NEFA (as Arunachal Pradesh was then known) an individual named Chatterjee found it and the precious flower has survived for posterity.

The writer is a senior Delhi-based journalist

