



Above: Detailing Don Hipólito Ruiz's account of orchids in the Andes is this botanical plate which illustrates the flowers and seed capsules of, from

top to bottom, *Anguloa*, *Bletia* and *Sobralia*.
 Opposite: Don Hipólito Ruiz (1754-1816), noted Spanish plant explorer.

Orchids Galore

Richard Evans Schultes, PhD, has just finished translating the diaries of plant explorer Don Hipólito Ruiz.

Here he shares some of his findings that pertain to orchids

ONE OF THE GREATEST PLANT collectors of the 18th century, Spaniard Don Hipólito Ruiz, spent 11 years in Peru and Chile from 1777 to 1788. His collections are basic to modern studies of the Andean floras, and his diary contains many extraordinary descriptions of the vegetation, ecological notes and ethnobotanical data on the local medicinal and other uses of a great number of the species.

Orchids, which, of course, constitute a major component of Andean floras, particularly occupied Ruiz's admiration, and he mentions and describes them often in his diary. One discussion, in his description of the flora of the Villa de Tarma in the central Peruvian Andes, is so vivid that it bears repetition.

"*Maxillaria alata*, *M. cuneiformis*, *M. grandiflora* and *M. tricolor*. *Anguloa uniflora*. *Gongora quinquenervis*, *Epidendrum maculatum*, *E. biflorum*, *E. acuminatum*, *E. croccum*, *E. emarginatum*, *E. lineare*, *E. volubile* and *E. triflorum*. *Humboldtia aspera* and *H. spiralis*. *Masdevallia uniflora*: [common name] rima-rima. *Sobralia dichotoma*, *Cypripedium grandiflorum*. *Satyrium album*, *S. didcolorum* and *S. luteum*. *Maxillaria bicolor* [common name] caccacacca, meaning "joined pavement," due to the fact that,

where it grows, the ground is so densely covered with the pseudobulbs of the plants that it gives the appearance of having been purposely paved with them. These bulbs

are so tender and juicy that they are easily chewed, at the same time oozing forth abundant

juice which is insipid, liquid and as clear as water. Six bulbs are enough to assuage thirst. In order to avoid climbing down to the bottom of the gorges to get drinking water, the natives frequently take advantage of this property when traveling through those localities where caccacacca abounds.

"The orchid family is so abundantly represented in the gorges of Huasahuassi and Palca that it is hard to find other localities where so many species and so many individuals grow. The ground, the cliffs and the trees are clad with them. It would seem that these regions were, from the time of the Creation, destined by nature for orchids in preference to the myriad other plants, larger and smaller, which also occur in these pleasant regions, reached by the sun every day of the year, even in the rainy season. Notwithstanding the abundance of orchids in these gorges, the same and different species are not lacking along the lower parts of the mountain slopes or along the edge of the jungle in the Provinces of



Panatahuas, Huamalies, Xauxa, etc. And even in the depths of the forests themselves, there are untold numbers of orchids hanging on trees and cliffs.

"This large representation moved me to prepare a monograph of that family. When my manuscripts were burned in Macora, more than five hundred descriptions of orchids were consumed; and in the shipwreck of the San Pedro de Alcántara, we lost more than two hundred drawings which, together with the six hundred drawings of other families of plants, we were sending to the Ministry in Spain. In spite of the difficulty in replacing all those descriptions and drawings, we have succeeded in great part in repairing these lamentable losses. We make this note that other botanists, in the years ahead, may visit these localities and complete the monograph."

In another place in his diary of 11 years, he again reports on the use of the juice of orchid pseudobulbs to quench thirst.

"On the 24th [of 1797],...I went to the territory of Lanco, one and a half league from Huasahuassi to see the orchids. They cover the entire locality, delightful and delicious. On that day, they served, instead of water to assuage our thirst, the juice of the bulbs of the aforementioned species of orchids." □

Richard Evans Schultes, PhD, FMLS, is Jeffrey Professor of Biology and Director, Harvard Botanical Museum (Emeritus), at Harvard University. Among his publications, which deal primarily with ethnobotany, is *Where the Gods Reign*. He has translated Ruiz's diary from the original Spanish and the translation will be published in late 1993 by Dioscorides Press of Portland, Oregon. In 1960, Pergamon Press published his *Native Orchids of Trinidad and Tobago*, and in 1963, *Generic Names of Orchids: Their Origin and Meaning* (with A. S. Pease). He received the 1992 Linnean Gold Medal from the Linnean Society of London for his services to the botanical sciences. • 26 Oxford Street, Cambridge, Massachusetts 02138.

MASDEVALLIAS

MASDEVALLIA mania, originally generated by the Victorians in the middle to late 1800s, has reappeared. This was stimulated by the discovery of new species since the early 1980s and by the production of lovely new *Masdevallia* hybrids. Approximately 365 species and 250 registered hybrid entice hobbyists with a diversity of sizes and colors. A startling array of exotic and whimsical flowers are colored vibrant-to-subtle hues. The tufted plants range in height from 1 to 18 inches, but the majority are of compact size affording the grower maximum use of limited space.

Spanish botanists Don Hipólito Ruiz and José Antonio Pavón described the genus about 200 years ago after they found *Masdevallia uniflora* in the mountains of Peru. They dedicated their discovery to a friend and fellow botanist, Dr. José Masdevall.



Masdevallia laucheana, native to Costa Rica, requires intermediate-to-warm temperatures. It fits neatly on the windowsill or under lights.