Hortus Malabaricus is a truly gargantuan effort at knowledge building about the Malabar region’s rich flora across various kinds of experts, countries and time. Complied by the Dutch Governor of Cochin in the 1600s, and translated into contemporary taxonomy by Prof. K.S. Manilal, the meticulous chronicle remains relevant even today.

The year 2012 is the 333rd year of publication of the botanic epic Hortus Malabaricus. Hortus Malabaricus, or “Garden of Malabar”, was compiled and published between 1678 and 1693 by Hendrik Adriaan Van Rheede tot Draakenstein (Van Rheede), the then Dutch Governor of Cochin. It is a compilation of flora of the Western Ghats, particularly focussing on the Kerala region.

Spanning twelve volumes, the book also documents the socio-ethnic culture prevalent in Kerala during that period. Van Rheede was basically a soldier with hardly any training in botany, but he was fascinated by the flora and fauna of the Malabar region. In these volumes, plants found in the Malabar region, stretching from Goa to Kanyakumari, were described based on their economic and medicinal value. Incidentally, Hortus Malabaricus is the first book in which Malayalam appears in print. Since the technology was not developed at that time, the written documents in Malayalam were engraved on copper plates. This image was then directly used for printing.

The work is the result of Van Rheede’s planned scientific outlook. He deputed nearly 200 knowledgeable local collectors to bring to him whole plants or their twigs bearing flowers, fruits and seeds in different seasons. Some of these plants were grown in the Company Garden. He then formed a panel of 15-16 expert local physicians to understand the medicinal value of these samples. The chief physician in this panel was Itty Achuden, who belonged to the Collatt family that practised medicine.

It was a practice among the Collatt Vaidayans to maintain a family book in palm leaf manuscripts. The information gathered by Collatt Vaidayans in each generation was well documented in these manuscripts, including the family tree. The manuscripts contain descriptions of medicinal plants and methods of preparation and application of drugs and the illnesses for which they were used.

Van Rheede collected these manuscripts, and gave them to three Konkani gymnosophist (‘naked philosophers’, the name given by Greeks to describe certain Indian philosophers) priest-physicians – Ranga Bhat, Vinayaka Pandit and Appu Bhat – for scrutiny. This information was then translated to Portuguese by Emmanuel Carneiro, who was residing in Cochin and later to Latin, by Herman Van Douep who was the Secretary to the Government at that time.

All the collected plants were put in folded papers indicating their names, uses and description and shipped to Amsterdam, where they were thoroughly
The introductions, forewords and dedications given separately in various volumes also contain valuable insights into the cultural, social, political, historical and linguistic conditions of seventeenth century Malabar. The descriptions of plants comprising their habit, foliage, flowers, fruits, colour, smell, taste and practical value appear in Hortus Malabaricus under their Malayalam names. The plates bearing illustrations have been inscribed in Roman, Malayalam and Arabic scripts. Konkani names are given in Devanagari script. Nearly all the plants are illustrated (of the 791 plates, 712 are in double folio size and 79 in folio size). The expenses of publication were met by ‘the widow of John Van Someren, the heir of John Van Dyck, Henry, and the widow of Theodore Boom’ (title page, vol. 1).

Translation of Hortus Malabaricus

Even though Van Rheede’s Hortus Malabaricus was a monumental work, it did not receive much attention among modern researchers because of its Latin description and nomenclature using the local names. In an effort to simplify this and present the book to a larger group of researchers, Prof. Manilal of Calicut University initiated a project to translate the Latin description and to find the correct scientific botanical name as per the current International Code of Botanical Nomenclature (ICBN).

In an effort lasting over 35 years he translated the entire 12-volume Hortus Malabaricus word-by-word. The descriptions of plants and their medicinal properties were retained as such. The only addition Prof. Manilal provided was commentary on the etymology of the Malayalam names. The correct scientific botanical nomenclature acceptable under the International Code of Botanical Nomenclature (ICBN) was provided by Manilal along with their important synonyms and basionyms.

Finding the correct identity of plants based simply on the illustrations was an arduous task. Manilal along with his team members visited and collected nearly all the plants described in Hortus Malabaricus from localities where they were originally gathered three centuries ago. The plants and their floral parts were then subjected to detailed observations and the correct identity of most was established. Their names were confirmed by consulting some of the important herbaria in Europe and America.

Prof. Manilal’s study reveals that most of the plants mentioned in Hortus Malabaricus are trees. Species diversity spans 67 members of the Fabaceae (bean family), 20 grasses, including three bamboos, 18 ferns, several aquatic plants,
17 cucurbits, 16 orchids, 15 sedges, 10 palms, 10 plants of the ginger family, two gymnosperms (Cycas circinalis and Gnetum medule) and only one moss — Bryumbicolor.

Apart from important native plants, those naturalized in the region since antiquity such as arecanut, banana, bel (bilva), black pepper, betel vine, champak, coconut, elengi (bakul or bullet wood), ginger, Palmyra palm, red silk cotton, sappan wood (pieces of which are boiled even today to purify drinking water in Kerala), talipot palm and turmeric, and a large number of plants introduced from the New World by the Portuguese have also been described. The English and Malayalam translation of this epic was published by the University of Kerala in 2002.

Based on the work carried out by Manilal and his associates, a concise reference book An Interpretation of Van Rheede’s Hortus Malabaricus was published by the International Association of Plant Taxonomists, under their official publication series ‘Regnum Vegetabile’. This is the only book by Indian authors published in this series till date and is considered a classic, essential for any study on the taxonomy of South Asian and South East Asian plants.

**Dutch Recognition**

There are few scientific books that have surpassed centuries of publication. Hortus Malabaricus is unique in many respects. It is the first text in which Malayalam words were printed. Even Linnaeus, whom the world recognizes as the father of taxonomy, referred this book before publishing his *Species Plantarum*! He even adopted many Malayalam words (nearly 258 words) to the binomial system he had developed.

Prof. Manilal took these factors into consideration when he decided to translate this book. If Van Rheede took nearly 30 years for completion of the original text, Prof. Manilal spent almost his whole life translating it. He published both Malayalam and English translation of this work during 2002-2003.

Even though the Kerala State government or Government of India failed to recognize the life long effort Prof. Manilal put into translating the voluminous work, the Dutch government has decided to honour him. Queen Beatrix of the Netherlands nominated him for the highest Dutch civilian award ‘Officer of the Order of Orange-Nassau’. Prof. Manilal was conferred this honour by Dutch consul general Marike van Drunen Little in 1 May 2012.

In the award ceremony, the Consul General remarked, “By honouring Manilal with the royal award, Her Majesty Queen Beatrix and people of my country wanted to show their appreciation to one person’s life-long dedication to public service through the study of Hortus Malabaricus.”

The Dutch government showed enough courtesy to send its representatives to his home town to give away the award, as he was unable to travel to the Netherlands due to health reasons.

Prof. Manilal is a dedicated teacher who loves Botany more than anything else. In this age when most teachers are concerned only with their salaries, increments and promotions, he spent most of his savings on this translation work for the sake of future students in Plant Science. A scientist, a great teacher and a devoted naturalist, Prof. Manilal has made a mark in the world of plant taxonomy.

The greatness of this person and significance of the work is evident in the introductory note of the award prepared by the Government of Netherlands: “Hortus Malabaricus still has much contemporary value which is not properly known to the outside world. Its translator remains an unknown quantity outside a small group of the academic community.”

Dr. Biju Dharmapalan is an Assistant Professor in the Department of Plant Biotechnology at the Mar Athanasios College For Advanced Studies (MACFAST), Tiruvalla-689101, Kerala. Website: www.macfast.in; Email: biju@macfast.org/ biju_dharmapalan@yahoo.co.uk