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THE NOMENCLATURAL HISTORY OF PLANTS OF EARLY SRI LANKAN BOTANY

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ABSTRACT

A historico-botanical account of the beginnings of Sri Lanka's plant nomenclature from the 4th century to the first quarter of the 19th century assesses the origins of this nomenclature in a traditional use of Sinhala names, especially for ayurvedic plants, owing to their connection with health care. The importance of such names to the west appeared in the European search in the 16th century for local medicaments known only under them. Hermann's naming of plants in the *Musaeum Zeylanicum* was related to their local names; but Linnaeus substituted these names under genera in the *Flora Zeylanica*, a methodology marking the first advance towards a Linnaean nomenclature. Moon advanced this nomenclature further adopting Linnaeus' binomial system in naming his Sri Lankan plants; but this *Catalogue of Plants* (Part II) aimed at a Sinhala nomenclature failed as many of his names had no correspondence with their botanic identities and often denoted more than one plant in different places.

INTRODUCTION

Plant nomenclature is often a tricky branch of systematic botany bound as it is with a code of technical principles. The uninitiated restricts it to the botany with puzzling names or one of frequent name changes. Still, it remains a science, a Linnaean foundation of a branch of systematic botany (Linnaeus, 1751). It grew out of a simple system of vernacular or local names of herbs used for economic, medicinal or decorative purposes and were associated with an underlying degree of related knowledge (Stearn, 1972). The herbs were generally the first indigenous plants of a country known to people without any previous base of documentation.

Of nomenclature as a beginning to knowledge of plants Linnaeus says: "If the names are unknown knowledge of the things also perishes" (Linnaeus, 1751).

In England, before the universal Linnaean system of binomial nomenclature first employed in the *Species Plantarum* (Linnaeus, 1753), the penchant of early British botany for popular names to its garden plants, epitomised by the Chelsea gardens of London, led to the feasibility of designating the members of the indigenous British flora by appropriate English names. So one of the commoner herbs of its flora, for example, was first known locally by a group-name, *Buttercups*, the family of the genus *Ranunculus* L. (Ranunculaceae). A clarifying particular instance is the common ash-wood herb originally known locally in the British garden as *'lily of-the-valley'* before it became recorded nomenclaturally in the British flora as the widespread field species, *Convallaria majalis* (Convallariaceae) (Clapham, Tutin & Warburg, 1962).

In Sri Lanka, on the contrary, the co-existence of the Sinhala people in historical times with the abundant presence everywhere of its flora lent a natural focus to a relatively intimate knowledge of the wild plants and their uses under a wealth of vernacular names. Many of these, unlike their British counterparts, carried as well an underlying descriptive turn so that their botanical names become Latinisations of their vernacular words -- e.g. the common genus *Elephantopus* L. (Asteraceae) is the Latin rendition of the Sinhalese *'et-adi,'* meaning *'elephant's foot-print,'* wherever the genus is represented in any of its species. In many cases of the Sri Lankan plants, therefore, there is some relationship between the Sinhalese vernacular name and the later Latinised botanical name. This is true especially of its *medicinal plants* whose vernacular names already carry a descriptive meaning in the science of the ayurvedic physician.

The natural trend for designating plants by their vernacular Sinhala names was so ingrained in the culture of the Sinhala people that later pioneering British botanists like Alexander Moon and Henry Trimen, envisioned something akin to a *'Sinhalese Flora'* of Ceylon! Moon attests that the dependence of the Sinhala people "for almost every necessity of life (food, clothing, medicine) gives them an early and intimate knowledge of plants" (Moon, 1824); and *Hoatson's Practice of Sinhalese Medicine and Materia Medica* refers to this *Catalogue of Plants* as Moon's *"Sinhalese Botany"* (Petch, 1923). More particularly, Trimen, speaking of the Sinhala nomenclature of plants, remarks: "The Sinhala people do possess a kind of classification into species and genera, but not based on any structural points" (In De Silva, 1891). Moon (1824), whose acquaintance with the Sinhala people of his time was close, had made a similar observation in different words: "The Sinhalese had formerly a complete and general system of botanical arrangement; but of this I have not been successful enough to obtain a trace."

The known story of the building-up process of vernacular names of the *'Sinhalese Botany'* owed its roots to the traditional concern of the Sinhala people especially for the medicinal representatives widely distributed among the flora. Rijklof van Goens Sr., the Dutch Conqueror of Malabar (1675-1682), contrasting the vegetation of Ceylon with that of the Malabar region made the following observation: "The island of Ceylon is a country blessed with such a wealth of valuable and delightful medicaments as any country on earth may be" (Manilal, 1980).

Van Goens' reference to medicaments was, evidently, to the medicinal plants of the country known to be first used for the treatment of ailments in the ancient hospitals. This is supported by the existence of the first of such hospitals, which, according to the Mahavamsa records,[2] was built by Buddadhasa (362-409 A.D), the Physician King of Anuradhapura, in the 4th century. This interest in the medicinal plants still persists with the local ayurvedic physicians (*vedaralas*) by a long-continued chain of oral tradition preserved in hymns, prayers and intercessions.

The raison d'etre of the Sinhala method of identifying medicinal plants under their Sinhala names was the awareness of the people themselves of the medicinal richness among the abundant vegetation. It only reflected their self-medication by these healing

[2]Mahavamsa, tr. Wilhelm Geiger. Colombo, 1912. ch.37,v.148

herbs at a period when western medicine was yet not known in the country; and the absence of foreign alternative medicines only highlighted this nomenclatural importance of correctly identifying the medicinal herb in the science of the local physician, the chief practitioner of ayurvedic medicine in the different parts of the country. The origins ofthe nomenclatural history of the Sri Lanka flora was thus largely associated with the first grouping efforts of the ayurvedic physician towards identifying and knowing his healing herbs from the appropriate Sinhala names indicative of their medicinal properties.

SCOPE

The task of this paper is to trace the history of Sri Lanka's plant nomenclature in the light of the early traditional method of identifying, under vernacular names, its indigenous plants (particularly the medicinal representatives), a practice that helped to initiate in historic times the presently accepted botanical nomenclature of the Sri Lanka flora. The statement, however, does not purport to suggest that the first locally-named plants collectively form any peculiar taxonomic group of this flora; nor does it affirm that the vernacular or local names are the only means of *all times* for identifying the elements of the flora of a country.

More specifically, the paper aims at tracing the first nomenclatural stages that subsequently have led from the prevalence of Sinhala vernacular names only for plants to the beginnings of the accepted botanical nomenclature in terms of the Linnaean binomial system. It acknowledges at the same time the awareness of the difficulty that even at the early stage of nomenclatural advancement into the binomial system the resultant botanical names would not have been always stable and, therefore, liable to further changes. Van Steenis (1957), in regard to such instability in general, aptly remarks: "And this (change) will not stop before a reliable, permanent inventory (of names) has been adopted."

HISTORICAL PERIOD

The nomenclatural survey covers the period from the 4th century to the first quarter of the nineteenth century. The 4th century may be credited to be the beginnings of this survey according to the Mahavamsa records regarding the ancient hospitals, the original seat of ayurvedic institutions. The first of these was built at Anuradhapura by Buddadhasa in the 4th century (see page 4) who treated patients himself with the local medicinal drugs known to him. He is accepted to have authored the *Sarartha Sangrahava*, the first ayurvedic compendium on the medicinal plants of Sri Lanka. This was written, however, in Sanskrit.

But it was in the 8th century, however, that a systematic study was made on these plants over the whole island by Kind Aggobodhi VII (766-772).[3] "This is, perhaps, the first recorded instance of medical research in Sri Lanka." (Uragoda, 1987).

One might still deduce, under a certain measure of probability, that in their close contact with the local people both Buddadhasa and Aggobodhi used Sinhala names to refer to the medicinal plants they dealt with in their treatment of hospital patients so that the Sinhala

[3]Culamwamsa, tr. by Geiger, Colombo 1953, ch.48, v.72

names used by them may have been the sole language of 'nomenclature' of their periods for the Sri Lankan plants, the first-known elements of its flora.

But the first use of Sinhala names for plants in ayurvedic literature was in the 13th century as cited by Godakumbura (1955). In his *Sinhalese Literature* he refers to two medical books, *Yogarnavaya* and *Prayogaratnavaliya*, written by Mayurapada Thera in *Sinhala*. "*Yogarnavaya* was subsequently converted into Sinhala verse by Mayurapada Thera, the chief of the Monarapa-Pirivena during the reign of King Bhuvenekabahu (1273-1284 A.D.)" (Senadhira,1995). The Thera was a champion of the Sinhala language and is said to have been an eminent physician.

The end of the 13th century A.D., however, is here suggested as the period when plant nomenclature in ayurvedc literature was already witnessing a transition to the stage of a structural form in the Sinhala names of the Sri Lankan medicinal plants that would be a close approach to the later requirement of the binomial nomenclature of the *Species Plantarum* (Linnaeus, 1753).

MEDICINAL PLANTS

Historically, the general practice of using the vernacular names of plants for medicinal and economic purposes was originally used by the ancient Greeks and Romans, "some of which had descended to them out of languages dead and gone long before the invention of writing" (Stearn, 1972). It spread later to peoples of other countries, notably to the ancient Hindu people of Vedic times in India.

In Sri Lanka, owing to their high profile in the traditional esteem for indigenous health care, medicinal plants rather than the economic ones were mostly known among the first representatives of the Sri Lanka flora. These are first recorded in Sanskrit in the medical compendium, the *Sarartha sangrahava*, which is similar in arrangement to the earlier Sanskrit works of *Susruta* and *Charaka*, physicians whose medical expertise followed the general lines of the vedic system of medicine. In spite of some lines borrowed from vedic authors the work yet contains a lot of original information that has entered into the *Sinhalese Materia Medica*.

It is worth noting here that the practice in remote ayurvedic times of determining medicinal plants from their local names was led by a dynastic sequence of ayurvedic physicians of the 4th century many of whom received royal patronage, particularly during the reigns of King Buddhadasa of Anuradhapura and King Parakramabahu the Great of Polonnaruwa; and standing high among these select practitioners were some of the Buddhist monks already then trained to practise the healing art as part of their Buddhist ministry. According to Uragoda (1987) several ancient inscriptions refer to "hospitals attached to Buddhist monasteries which were primarily meant for the monks."

Following the ancient period of the Sinhala kings (particularly of Anuradhapura and Polonnaruwa) and of their involvement in native medicine there has been no information for centuries on the latent activity of the people vis-a-vis their indigenous plants. The flora of Sri Lanka continued thereafter to remain open to further scientific investigation.

Following this lull till about the 16th century, the period of a resurgence of world interest in floristic botany, that the Sri Lanka plants began to be first known to the *West*; the attraction was the *medicinal plants.*

So the first scientist of the West to make mention of these plants was Garcia da Orta, a Portuguese physician resident in Goa. He documented (1563) a description of the rich diversity of the flora of Sri Lanka in his report, *Coloquios dos Semplese Drogos he Causa Medicinais da India.* Da Orta mentions Ceylon in this work though he was not known to have visited the island; yet chronologically the work has made "the first reference to the flora of Ceylon by an European" (Senadhira, 1955).

Among this rich flora Da Orta mentions specifically the *Snake-wood* (*'pao de cobra'*), a controversial 'medicinal plant' of the time, of which he identifies three kinds. The first such plant was a bushy shrub. "It rises to about 26 ins. and gives out a few branches. The root is the most profitable part, and that is also very slender..." (Peiris, 1924). In ancient Sri Lanka the 'Chingalas' mistakenly called it *rannetul*; Hermann (1717), however, records it correctly as ratnetul, which Petch (1919) refers to botanically as *Plumbago rosea*, now revised to *Plumbago indica* (Alston, 1931). Since Hermann notes that the pounded root of the plant was then applied as an antidote to snakebites, Petch (1919) points out "that in that sense it may be regarded as a 'snake-plant,' but it is not one of the plants described by Orta."

Hermann collected two specimens of the first plant described by Da Orta both under the Sinhala general name *ekaweriya*. One of the two was referred by Hermann to *ekaweriya* (Hermann, 1717) this was really *Wal-ekaweriya* (Petch, 1919), botanically termed *Rauvolfia serpentina* (Trimen, 1895); the other Hermann specimen was *Rat-ekaweriya* (Petch, 1919); the real mongoose plant, mistakenly identified by Linnaeus, was *Ophiorrhiza mungos* (Trimen, 1894) which (according to folk-lore) the mongoose seeks in order to protect itself against the bite of the cobra. The root of *R. serpentina* is used now, instead, in the cure of hypertension diseases (Trimen, 1895).

Regarding his second plant Da Orta says: "In Ceylon there is another stick or root used as an antidote.... This tree grows like a promegranate, and is with the other trees of the forest that are neighbours to it, but leans to them in the same way as a gourd." (Peiris, 1924). The plant previously named by the Sinhalese *goda-kaduru* was identified in Europe as that of *'Lignum colubrinum'* but later was seen and named by Linnaeus *Strychnos nux-vomica* (Petch, 1923), the source of the well-known alkaloid, *Strychnine.* "The bark is taken as a tonic and is used against skin-disease" (Trimen, 1895).

There was a further examination of Da Orta's plants by Nicolaus Grimm, a Swedish physician who worked along with Hermann for some time on the Ceylon plants. After he left the Island he published the *Insulae Zeylanicae Thesaurus Medicus vel Laboratorium Zeylanicum* (Leiden, 1679), a book that gives evidence of Grimm's acquaintance with these plants. The descriptions in the book also bore on the identity of Da Orta's first two *Snake-wood* plants; they confirm the identity of the first plant as *ekaweriya* (Rauvolfia serpentina) but his description of the second refers differently to its

climbing habit, a character that prompted Petch (1919) to more correctly identify the plant as *Strychnos trichocalyx*.

The third such Da Orta plant, a climber "with a long stem and few, narrow, and variegated leaves" failed to be recorded by both Hermann and Grimm. Petch variegated leaves" failed to be recorded by both Hermann and Grimm. Petch accepts that the description fits the identity of the plant known to the Sinhala people as *Iramusu*, botanically termed *Hemidesmus indicus* (Trimen, 1895). "The roots are used as a tonic medicine"[4] (Trimen, *ibid.*).

Amidst the 17th century quest of the West to know the rich medicaments and spices of the East Sri Lanka also saw another European scientist who did visit the country at the same time as Robert Knox. This was Phillipus Baldeus, a Minister of the Dutch Reformed Church. While serving the Dutch forces in the island he published a detailed account of the South Indian region entitled, *A true and detailed account of the Most Celebrated East India Coasts of Malabar and Choromandel, as also of the Isle of Ceylon* (Amsterdam, 1672). The abridged English translation of the work has a section on Sri Lanka which acknowledges that the Sinhala people had their own names for plants, especially its medicinal plants about which Baldeus observes: "Ceylon is sufficiently provided with medicinal herbs, and they cure all the distempers with green herbs, in the use whereof their physicians are better versed (by experience) than many of our pretending chyrurgeons."

Baldeus himself had the original Dutch interest in the spices of Ceylon. So in the same paper he further describes in detail the *Cinnamom* tree then known under the local name *curinda-gas*, now under *dawul-kurundu*, botanically termed *Neolitsea cassia* (Kostermans, 1958). "The cinnamon is considered by physicians and masters of medicine as too heating in its effects; yet there is not only distilled from its root a water which smells like camphor but also yields the strongest camphor itself" (Baldeus, 1960).

In the later contemporary times of Moon (see below) further research on both the use of plants by the 'Cyngalese' and the *Materia medica* was pursued by a British Assistant Surgeon turned amateur botanist. This was J. Hoatson, a medical officer stationed at 'Alipot' (Uva Province).

There is no evidence that Hoatson had actually seen any medicinal plants; the information he derived about them came from his deep inquiry into Sinhala medicine and the personal meetings he had with the local people well conversant with these plants. But his Sinhala list of medicinal plants as derived from oral information and known to the local physicians often referred to groups of plants used in decoctions specific for certain diseases. The following group of plants, for example, was prescribed (together with cow's milk), as a cure for a form of Aghney Premehey or Gonorrhoea:

Aralu: *Terminalia chebula*

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[4]The roots of these plants were formerly taken as snakebite antidotes: but none of these proved to be effective as such.

Bulu: *Terminalia belerica*
Nelli: *Phyllanthus emblica* (Petch, 1924).

The names in Hoatson's list of plants often indicate that the Sinhala names of medicinal plants refer to their corresponding botanical names.

NON-MEDICINAL PLANTS

The period following Baldeus' visit to Sri Lanka till about the late 17th century was rather one of a plant-search than one of a botanical enterprise of an investigative nature into the Sri Lanka (non-medicinal) plants. The works of the period happened to lack much of a concern for nomenclatural stability in some of the earlier publications of the Indian subcontinent. The hiatus was reflected, for instance, in the *Hortus Malabaricus* of Van Rheede (Amsterdam, 1657-1678), which included a few plants from Sri Lanka, too. The *Hortus* referred to the local names of the Malabar plants, which had not yet received the attention of Linnaean nomenclature.

But amidst this bleak scenario of the late 17th century emerged Sri Lanka first recognized botanist. This was *Paul Hermann*, formerly a student of Arnold Seyn, Professor of Botany of the University of Leiden. In 1672 he was appointed 'Ordinary and First Physician' to the Dutch forces in Sri Lanka (Bougler, 1900); and for seven years he held the distinction of being at the same time the first qualified botanist to make a scientific investigation into the flora of Sri Lanka based (still) on a vernacular nomenclature of Sinhala names. Fittingly, Peiris (1952) hails Hermann as *'The Father of Ceylon Botany.'*

Following the traditional culture of the country Hermann identified his collection of plants according to their local names: "About 657 plants.... divided into 23 classes, with their Latin, Malabar (Tamil) and Sinhala names," (ibid., p.11) arranged without any further taxonomic order. Of this original dried collection of plants he made the *Hortus siccus* in four volumes. William Sherard, Director of the Leiden Garden, posthumously prepared a catalogue of the *Hortus* and published it as the *Museum Zeylanicum* (Leiden, 1717). To each Sinhalese ('lead') name -- e.g. *Ratabala/Ratambala*-- Hermann had tagged on a short Latin botanical description (the equivalent of the Linnaean polynomial), along with "terse notes appended to most of the descriptions. He must have been very familiar with the speech and manners of the people of the Island." (Peiris, 1952). Linnaeus later qualified these Sinhala names of plants under appropriate taxonomic genera only (see below).

Another lean period of botanical activity followed Baldeus' visit till Linnaeus enriched the science with a studied edition of Hermann's *Musaeum Zeylanicum*, the precursor to the age of flora writing in the country. This effort was the *Flora Zeylanica* (1747).

Linnaeus, following his basic requirement of assigning broad generic names to qualify unknown plants, identified each of the Sinhala-named plants of the *Musaeum Zeylanicum* only under their botanical *genera*. The inability to qualify the genus further was restricted to the period of his *Philosophia Botanica* (1751) which paid attention to

genera only at a period when he had not yet determined the species complex within the genus of a plant. This he did later in the *Species Plantarum*. Here, too, one discerns Linnaeus' emphasis of the genus as basic to botanical nomenclature. So in the *Museum Zeylanicum*, (vol.2, fol.3), he could have identified *Ratabala*, [5] only under the genus *Ixora* in the *Flora Zeylanica*; and its particular species he later qualified in the *Species Plantarum* as *Ixora coccinea* (Linnaeus, 1753), the specific legitimate name of the plant.

The Sinhala plant-names used by Hermann and reduced to respective genera in the *Flora Zeylanica* signalled the first introduction of such names to the basic Linnaean level of the botanical genus as an important stage of progress in the nomenclatural history of early Sri Lankan botany.

Subsequently, systematic interest in the Sri Lankan plants attracted scientific appeal till *Alexander Moon*, a botanist from the British Museum, took up in 1817 the superintendency of the Botanic Garden, Kalutara (later transferred to Peradeniya), an appointment he held from Sir Joseph Banks himself, the first Director of the Botanic Garden, Kew.

Before Moon's arrival, however, two other botanists had visited Sri Lanka *Johann Gerard Koenig* (in 1777, 1780 and 1781) and *Carl Peter Thunberg* (in 1777-78). They made only collections of plants, but it is not known whether they (with some exception of *Thunberg*) did make any definite study of the nomenclature of these plants. Later a few of *Thunberg's* Sri Lanka plants were described in Juels' *Plantae Thunbergianae* (Uppsala, 1918).

But it was Moon's botanical activity at Peradeniya (1817-1825) that marked yet another milestone in the botanical nomenclature of our plants. Going beyond a mere collection of plants, it strove to devise in his nomenclature an original relationship between the Linnaean genera and the 'Sinhala genera' in the *Catalogue of plants* (Part I, 1824)); and influenced by Linnaeus' binomial system, he related the equivalent of his Sinhala plant-names in this work with the names according to the binomial system. So in the *Catalogue of plants* he identifies under *Justicia* the Sinhala-named plant, *kawu-tumba*, a common ground herb of our forests, as *Justicia ecbolium*, the species now revised to *Ecbolium ligustrinum* (Cramer, 1989).

Moon's first acquaintance with Sri Lankan plants was associated with a subsequent relationship with the local people and their innate interest in the plants in their surrounding environs. The vigour of the association made his approach to the Sri Lanka flora original and perceptive as it did to that of Hermann. Hence the leading feature in his *Catalogue of Plants* (Part II) was that the author "paid a great deal of attention to Sinhala plant names" (Trimen. In De Silva, *op. cit.*, p.144).

Moon's list of plants comprehends a set of 3,360 such names (Petch, 1922). Hoatson later even calls the collection '*Moon's Sinhalese Botany*'. More significantly, the

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[5]This is considered in modern taxonomy as the type specimen of *Ixora coccinea* L.

Catalogue of Plants (Part II) carried his interest as far as the attempt to arrange these names alphabetically according to Sinhala 'Genera' based on a sinhalese word-root combination -- e.g. under the word- root *'ade'* he places the genus *'abe'* = mustard plants under which is distinguished the species *'rateabe'* = foreign mustard, and *'walabe'* = the wild mustard etc. (Moon, 1824).

Petch (1922), however, discounts the validity of Moon's Sinhala names considering them mostly as only names "with very little attempt to associate the names with plants; his Sinhala 'genera' are only words...and for many of the Sinhala names there is no corresponding identification in the list of scientific names." He asserts rightly that vernacular names alone cannot be used to identify correctly the names of the flora of a country; often they carry more than one meaning in different plants in different places and nullify the nomenclatural stability of a species according to the requirement of one name one plant.

Trimen (*ibid.*) speaking of Moon's Sinhala names, often derived from the local people, repeated the same thing in different words: ".... those given by villagers require careful attention."

Not withstanding the originality of his *Sinhala catalogue* Moon closely adopted the Linnaean system of classification based on the fructification (floral and fruiting parts). As a follower of this methodology Moon rightly merits to be equally reckoned as an 'orthodox botanist,' as Hermann was held to be by Linnaeus (Stafleu, 1971).

On the other hand it cannot go unnoticed that at the juncture of the absence yet of a code of botanical nomenclature Moon was within his rights to originate a *Sinhalese catalogue* of names of his own devising of word-root combinations --- the result of "paying a great deal of attention to Sinhala names" (Trimen, *ibid.*). In spite of inaccuracies the associated meaning of many of his Sinhala names with their corresponding plants may still have had its use to the Sinhala people of his time to whom such "names are connected with certain ideas which are prevalent about the individual species" (De Silva, 1913). Thus the aromatic indigenous leaf used in curries -- e.g. *'karepinche'* (*Murraya koenigii*) is distinguished from that of an introduced species by a different prefix *'ratepinche'* (*M. paniculata*), (Moon, 1824).

But the shortcomings of the *Sinhalese catalogue* cannot yet detract from the worth of Moon's dedicated botanical activity during his tenure of office at Peradeniya. There was still his huge collection of indigenous plants of which "164 were new species for his time" (Willis, 1901) -- a tribute to his indefatigable energy in the field. Hooker & Thomson (1955) rate the "collections extensive and good, and a foundation of the Peradeniya Herbarium."

It is unfortunate that amid his official duties as superintendent of the Peradeniya Garden[6] Moon probably had not the time enough to embellish the nomenclatural

[6]A section of the Garden at the time was devoted to the cultivation of coffee.

methodology of the *Sinhalese catalogue* on better Sinhala structural lines.[7] Had he paid closer attention to basing his botanical names on respective plants his list of Sinhala plant-names would have had more objective identity, and the effort would have rendered stability to his *Catalogue of plants*. The cumulative content of his work both in the field and in his herbarium would have then stood the test of time in contributing a recognized chapter in the build-up to the nomenclatural history of early Sri Lankan Botany. Still, it was in acknowledgement of his dedicated work to its botany that Arnott dedicated to Moon's memory a new genus *Moonia* Arn. (Asteraceae), only one species of which (*M. heterophylla* Arn.) is represented in the Sri Lankan flora (Alston, 1931).

PLANT COLLECTIONS AND NOMENCLATURE

The application of appropriate technical names to specific plants is briefly the methodology of modern botanical nomenclature. Linnaeus himself based his nomenclature of species of the *Species Plantarum* on herbarium material and on specimens he had seen growing in gardens as those in the *Hortus Cliffortianus*. In other words he was convinced that plant collections provide the evidence for correct nomenclature.

A similar procedure is exemplified in the foregoing accounts of this paper. It reflects a gradual progression of the nomenclature of the early-known examples of the Sri Lankan flora, from early vernacular (Sinhala) names to recognized botanical ones. Da Orta, for instance, had not himself seen the *Snake-wood* plants; his detailed descriptions of them were based on hearsay accounts. But it was Linnaeus who applied the botanical names of these plants after having seen and examined Hermann's authentic specimens of them; and there would not have been the genera of the *Flora Zeylanica* without the plants of Hermann's *Hortus siccus*.

Moon's nomenclature of his Sri Lankan plants erred unfortunately in not having correctly related botanical names to the plants known originally under their Sinhala names. Accordingly, Petch (1922) says: "Moon merely collected names not plants." (*Op. cit.*, p. 174). On the other hand his huge collection of plants could have been used as a foundation for giving Moon a better nomenclatural direction in realising'Sinhalese *Botany*' of correctly-named local plants that would have been more practical than his own attempted results proved to be.

CONCLUSION

The fact that already by the early 19th century the names of the Sri Lankan plants had begun to be more specifically determined under the two-word system of Linnaean nomenclature, based on representative plants, speaks much of the scientific perception of the early botanists' investigation into our flora. Such activity was invariably associated with botanical explorations of the vegetation in various parts of the country; and the

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[7]Mention must be made that most of Moon's names in the *Catalogue* are *nomina nuda* in the sense of the *Botanical Code*, Art.32. Alston (1929) considers 21 of them to be validly published been based on pre-Linnaean plates, types of post-Linnaean names.

accompanying witness of the abundance and diversity of plants afforded the first efforts of these botanists in coming to know the plant representatives[8] originally identified in historic times only by their vernacular names.

It is ironical that despite the universally accepted scientific advances in the nomenclature of plants of an Asian country like Sri Lanka, the prevalent connection between the vernacular and botanical names of its plants is much closer than is commonly witnessed in the authentic medicinal representatives of its flora, especially as regards methods and the names themselves, and has forged the initial stages of the development of plant nomenclature of Sri Lanka's early botany.

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REFERENCES

Alston, A.G.H. (1929). *Annals of Royal Botanic Gardens Peradeniya* **11**: 203-205.

Alston, A.G.H. (1931). Supplement VI. *A Handbook of the Flora of Ceylon.* Ed. H. Trimen, P.176, Dulau & Co., London.

Baldeus, P. A. *A true and exact Description of the Great Island of Ceylon*; tr. by Pieter Brohier Ceylon, Colombo 1960, p.ix.

Boulger, G.S. (1900). History of Ceylon Botany in Trimen, *A Handbook of the Flora of Ceylon* **5**:367.

Clapham, A. R., Tutin, G. T. & Warburg, E. F. (1962). *The Flora of the British Isles.* Ed. 2, Cambridge University Press.

Cramer, L. H. (1953). *Ecbolium ligustrinum. Kew Bulletin* **51**(3): 555.

De Silva, W. A. (1891). A contribution to Sinhalese Plant Lore. *Journal of Ceylon Branch of the Royal Asiatic Society* **12**(42): 144.

De Silva, W. A. (1913). The Medical Literature of the Sinhalese, *Journal of Ceylon Branch of the Royal Asiatic Society* **23**(66): 35.

Godakumbura, C.E. (1955). *Sinhalese Literature*, Colombo Apothecaries, Co. Ltd., Colombo, p.107.

[8]Noteworthy are the plant drawings, including those of the Fungi, by Haramanis de Alwis Seneviratne, the splendid artist of the Peradeniya Garden. They have indirectly helped clarify the identity of the plants themselves.

Hermann, P. (1717). *Musaeum Zeylanicum*. Ed. William Sherrard, Leiden.

Hooker. J. D. & Thomson, T. (1855). *Flora Indica*, W. Pamplin, Soho, p.121.

Kostermans, A. J. G. H. (1958). *J. Sci. Research Indonesia* **1**: 85, 95.

Linnaeus, C. (1747). *Flora Zeylanica* (Stockholm, Laurentius Salvius).

Linnaeus, C. (1751). *Philosophia Botanica.* Stockholm, Aphorism 210.

Linnaeus, C. (1753). *Species Plantarum*. Facsimile Ed., Roy. Soc., Lond.

Manilal, K. S. (1980). *Botany and History of the Hortus Malabaricus*. Oxf. IBH Publishing Co., Delhi, p.39.

Moon, A. (1824). *A Catalogue of the Indigenous & Exotic Plants growing in Ceylon.* Colombo, (Preface) p.2.

Peiris, P. E. (1924). Garcia da Orta, *Journal of Ceylon Branch of the Royal Asiatic Society* **24**(4): 144.

Peiris, P. E. (1952). Paul Hermann, The Father of Ceylon Botany. *Journal of Ceylon Branch of the Royal Asiatic Society* **2**: 18.

Petch, T. (1919). Garcia da Orta's Mongoose Plants. *Ceylon. Antiquary* **4**(3): 144.

Petch, T. (1922). Sinhalese Plant Names. *Ceylon Antiquary* 7(3): 174.

Petch, T. (1923). Hoatson's Sinhalese Practice of Medicine and Materia Medica. *Ceylon Antiquary* **8**(3): 230.

Petch, T. (1924). Hoatson's Sinhalese Practice of Medicine and Materia Medica. *Ceylon Antiquary* **9**(4): 237.

Senadhira, A. (1955). *History of Scientific Literature of Sri Lanka.* Foremost Plant Productions, Colombo, p.29.

Stafleu, F. A. (1971). *Linnaeus and the Linnaeans*, A. Oosthoek's Uitgeversmaatschappij, N. V., Utrecht, Netherlands.

Stearn, W. T. (1972). In Smith, A. W., *A Gardener's Dictionary of Plant Names.* Cassell, London, p. 339.

Uragoda, C. G. (1987). *A History of Medicine in Sri Lanka.* Ceylon Medical Association, Colombo, p. 24.

Van Steenis, C. G. G. J. (1957). Specific and Infra-Specific Delimitation. *Flora Malesiana* I **5**(3): clxxiii. Nordhoff Djakarta.

Willis, J. C. (1901). The Royal Botanic Gardens, Peradeniya. *Annals of Royal Botanic Garden Peradeniya* 1: 6.