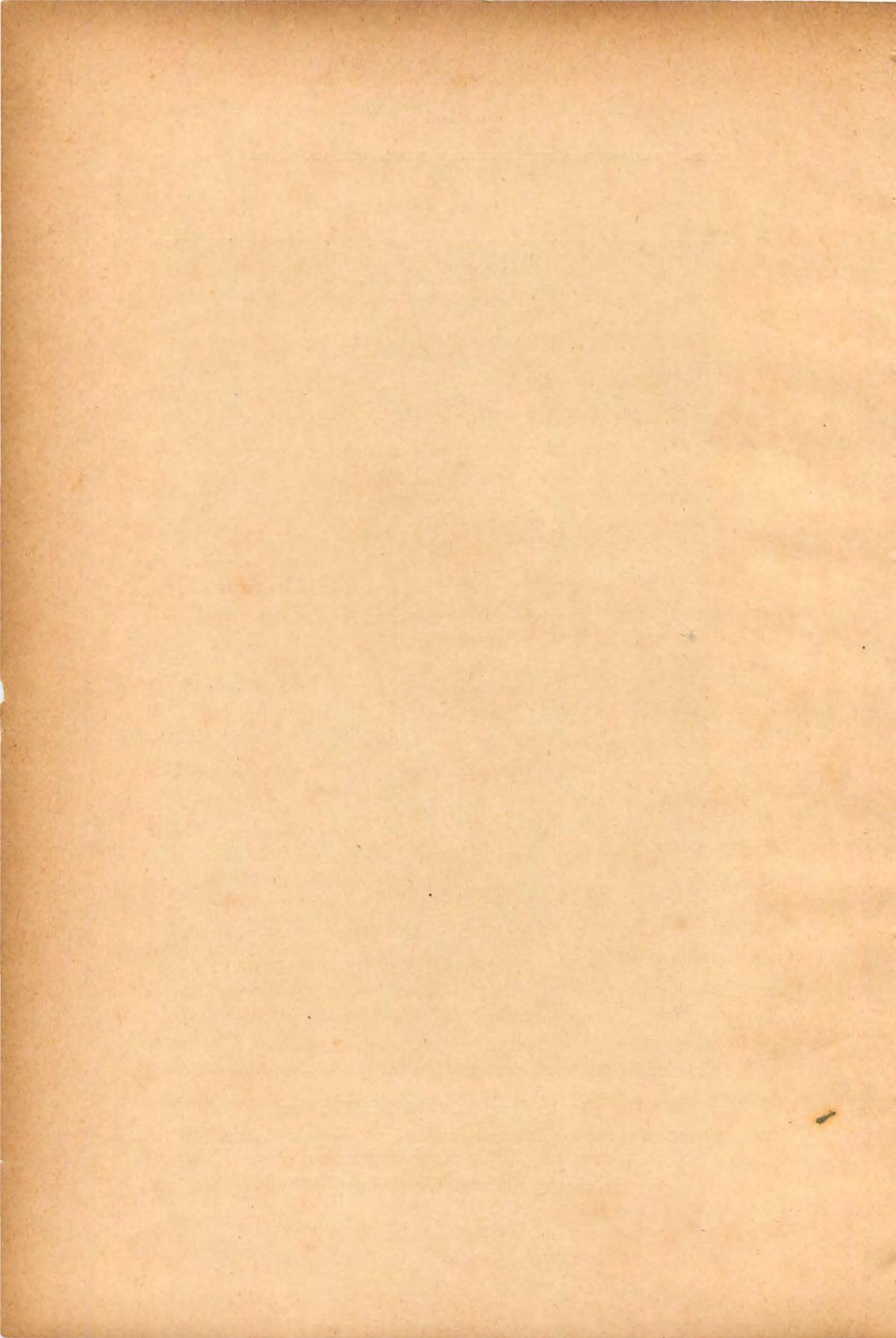


Dr. A. Kerr, 1901-1932 in Thailand,
Renowned for his extensive collections; Former Leader of the
N. H. Section and Editor of this Supplement; now Editor
of Craib's *Florae Siamensis Enumeratio*.



THE
JOURNAL
OF THE
THAILAND RESEARCH SOCIETY
(Formerly The Siam Society)
Natural History Supplement.

Vol. XII., No. 1

BANGKOK

1939.

EARLY BOTANISTS IN THAILAND.¹

BY A. KERR.

A short sketch of botanical collectors in Siam was given by the late Dr. F. N. Williams in *The Journal of Botany* (1903), and in the *Bulletin de l'Herbier Boissier* (1904). In the present paper I propose to extend and amend the information given by Williams, but restricting myself to botanists who visited the country before the beginning of this century. Some of these botanists have only left us their observations, others were chiefly interested in obtaining living plants and seeds, while others again made collections of dried plants. In the last case an endeavour is made to give an idea of the approximate size of the collections and where they are now to be found. I have arranged the botanists more or less in chronological order, according to the date of their visits. The figures in brackets after the names indicate the approximate year or years when each botanist visited the country. Sometimes a series of visits were made, or a prolonged stay in the country, in which cases the years given cover the period of the visits or stay, as the case may be. A few of those listed, beginning their collecting last century, carried it on into this. Such are indicated by an arrow after the date.

Here I would like to acknowledge the generous assistance I have had from various authorities. The Director of the Royal Gar-

(1) The name Siam has been retained in the text of this paper, which is concerned with a period antecedent to the decision to regard Thailand as the official name of the country for use abroad.

dens Kew, Sir Arthur Hill, was kind enough to allow me to go through the Kew letter books and make use of any relevant material I found there. I have also to thank the late Keeper of Botany of the British Museum, Dr. A. B. Rendle, and the present Keeper, Dr. J. Ramsbottom, for permission to examine the Koenig manuscripts. Mr. John Bailey kindly allowed me to see copies of Sir Robert Schomburgk's letters. The India Office and the Curator of the Madras Record Office have been good enough to supply me with information about Koenig and the movement of certain of the East India Company's ships.

I have not been able to find any reference to the vegetation of Siam till near the close of the seventeenth century. It is possible that such references exist, however, as French missionaries first arrived in Siam in 1662. It is highly probable that some of them, at least, took an interest in a vegetation which they must have found new and strange. None, however, did for Siam what Rheedee was doing for Malabar and Rumphius for Amboina at about this period. It does not appear that any members of the French Embassies to Siam of 1680-1685 have left any botanical records beyond the mention of the more important crops and of a few plants yielding economic products or of ornamental value. The first botanist on our list, Kaempfer, has done but little more.

Kaempfer, Englebert (1690).

This distinguished traveller, in his *History of Japan*, gives us only some meagre notes about the vegetation of the limited part of Siam seen by him. A native of Westphalia, trained in medicine, Kaempfer travelled in many countries eventually reaching Batavia. While there he was offered, and accepted, the post of physician to an Embassy sent yearly to Japan by the Dutch East India Company. The ship that carried this embassy visited Siam on its way to Japan, reaching the Menam early in June 1690. On June 7th Kaempfer went ashore at the mouth of the Menam, visiting there the Dutch settlement known as 'Amsterdam'. Here, as he tells us, he tried to do some 'simpling,' but apparently he did not make any collection of dried plants in Siam, as he did later in Japan; at least none such

have been traced. When his ship went on to 'Judia' he was more interested in the customs of the people and the architecture of the temples than he was in natural history. Still, some natural objects interested him enough to call for a description, such as a colony of weaver-birds' nests in an *Erythrina* tree, and the synchronous flashing of fireflies in trees bordering the Menam.

Koenig, Johann Gerhard (1778 - 1779).

It was nearly a hundred years after Kaempfer's visit before another botanist, Johann Gerhard Koenig, visited Siam. This visit might have remained almost unknown to us if Mr. H. N. Ridley had not had Koenig's manuscript account of his voyage translated and published in the *Journal of the Straits Branch of the Royal Asiatic Society* (Nos. 26 & 27, 1894). The late Colonel Gerini reproduced in the *J.S.S.* (ii. 32-40) such parts of this translation as related to Puket. To it, and to a paper by Dr. Rendle in the *Journal of Botany* I am indebted for much of the information that follows. For the particulars of Koenig's lists of Siamese plants I have to thank Mr. H. B. Garrett, who extracted the lists from Koenig's lists from Koenig's manuscript.

Here it may be well to say something about the spelling of Koenig's name, which may be found in various renderings. Koenig himself spelt his name in two different ways. When writing in English he signed himself *John Gerard Koenig*, but in German he used the form *Johann Gerhard König*.

Koenig was born about 1728 in the Baltic province of Courland. He became a pupil of Linnaeus, with whom he afterwards corresponded. His first botanical expedition, in 1765, was to Iceland. In 1768 he went to India as Surgeon and Naturalist to the Danish settlement at Tranquebar, where began his friendship with William Roxburgh, the author of *Flora Indica*. While in India Koenig made large collections of dried plants. In 1778, leaving the Danish Service, he started on a voyage to Siam under the auspices of the Madras

(1) In Koenig's diary this name is written quite distinctly as Leith, but later on a Captain Light is referred to. Both names seem to refer to the same man, possibly Captain Francis Light, the founder of Penang, as Gerini states.

Board of the English East India Company. This voyage is of great interest to students of the fauna and flora of Siam, for Koenig was one of the keenest and most active naturalists who ever visited the country. He sailed from Madras in the ship *Bristol*, with Captain Leith, on August 8th 1778. Everything he saw on the voyage interested him. When at sea he studied marine life, occupying himself in describing sea-birds, fish, molluscs, in fact any organism he could obtain. In the leisurely sailing-ship days there was more opportunity for getting acquainted with the life of the sea than there is to-day, when one lives perched high above the surface in a vessel noisily shearing its way through the water.

On November 8th Koenig set foot for the first time in Siam, going ashore for a short visit near the mouth of the Menam. During his stay, from that day on, he never lost an opportunity of making himself better acquainted with the flora of Siam. Not only did he collect plants, but he also started writing up a list of Siamese plants, his *Chloris Siamensis* as he called it. His ship stayed in Bangkok, but he hired a small boat in which he went up to Ayuthia, collecting on the way, and later made an attempt to go to 'Papri,' but was prevented by the lowness of the water. On the 4th of January 1779 the *Bristol* left Bangkok for Chantabun, reaching that port on the 26th. She only remained there two days, which Koenig, with his customary assiduity, spent in investigating the flora of the neighbourhood. He was particularly anxious to trace the botanical source of some of the well known products of Chantabun, which he considered one of the finest countries he had ever seen. In a letter to Dr. Solander, writing of his endeavours to trace some of these products, he relates how he gave 'one tical to a boy, to get a branch with blossoms of the gamboge tree, but the boy never came back.' It was nearly a hundred years after Koenig's visit that the source of gamboge, *Garcinia Hanburyi*, was discovered. His next port of call in Siamese territory was Puket, which was reached on March 19th. Within ten days, on the 28th of March, the *Bristol* sailed for Madras. After passing the Nicobars very heavy weather was encountered. This so damaged the old and ill-found rigging of the *Bristol* that the captain was forced to return to Puket, reaching that port again on April 30th. Then

followed a long period of delays on this coast, with much wet and stormy weather. Koenig, however, was able to make frequent excursions ashore to collect plants and zoological specimens. After plants, butterflies seem to have attracted him most at this time. He frequently complains that the wet weather was causing his collections to decay. To add to his difficulties, he became very ill with fever. This induced him to transfer himself and his belongings to the ship *Prince*, with Captain Scott, which was about to sail for Malacca. This he did on July 13th; his own captain readily agreeing 'as he feared to have a corpse on his ship.' The *Prince* encountered contrary winds and did not reach Malacca till August 11th, by which time Koenig was very much better. From that date till December 16th he remained at Malacca, some of the time, apparently, living ashore and busying himself with collecting. On November 24th he sent whatever was dry in his collections on board the frigate *Sea Horse*, with Captain J. A. Panton, bound for Madras, entrusting the plants to the special care of Mr. Stuart, doctor of the frigate. On December 12th Koenig moved all his things on board his own ship, which sailed on the 16th, reaching on the 27th 'Quedar,' where they stayed a few days. Here the diary finishes abruptly. No more of it has been found among the Koenig manuscripts at the British Museum, but there are a number of letters written by Koenig after his return to India.

Koenig died from dysentery in India on June 26th 1785, being attended in his last illness by his friend William Roxburgh. Shortly before his death he made a will bequeathing his plants and manuscripts to Sir Joseph Banks. These collections eventually went to the British Museum. There is also a considerable set of Koenig's plants in the herbarium at Lund and some, at least, in other herbaria. The Lund set has been examined and listed by Mr. C. E. C. Fisher, who has published the results of his examination in the *Kew Bulletin* (1932:49-76). There is no record of the number of specimens in Koenig's herbarium at the time of its passing into Bank's possession; but Dr. Rendle states it must have run into thousands. The number of Koenig's specimens from Lund examined by Mr. Fischer was 346. As to the Koenig collection in the British Museum, Dr. Rendle writes that he had not found the plants collected on the journey to Siam and

Malacca in the Banksian herbarium. There may, however, be one or two from Malacca, as the writer has since come across one Koenig specimen, *Dischidia Rafflesiana*, marked as from Malacca. Some descriptions of Zingiberaceae and Orchidaceae published by Retzius are based on Koenig's observations on plants collected in Siam and on the west coast of the Malay Peninsula; but, Dr. Rendle says, there is no evidence that Koenig's observations were accompanied by specimens. On looking over Mr. Fischer's list, it is seen that one plant, *Fimbristylis nutans*, is recorded as from Malacca, while a single plant, the fern *Cheilanthes tenuifolia*, has Siam given as one of its habitats. Judging from his diary and manuscript lists, one must conclude that Koenig collected several hundred plants in Siam. What has become of them all? No doubt some were ruined by the bad weather encountered off the Peninsula, but it is unlikely that all those collected months previously in Bangkok and Chantabun were so destroyed. Perhaps if Koenig had explained more fully the entry in his diary on December 12th 1779, as he was preparing to leave Malacca for the last time, "I sent all my things on board, and tried to overcome my disappointment about the failure of my journey," some light might be thrown on the problem. In all probability the collections sent from Malacca on November 24th, on the *Sea Horse*, contained all, or nearly all the Siamese material. The India Office Records show that the *Sea Horse* reached Madras December 18th 1779, but the Madras Records Office has no note of the collections sent thereon by Koenig. In letters¹ written by Koenig himself, within a month or two of his return to India, in which he gives a summary of his trip, no mention is made of any loss of the plants sent by the *Sea Horse*, so presumably they arrived safely. Here we must leave the subject without being able to trace what became of the first considerable botanical collection made in Siam. It may be said that not a single specimen of Koenig's, indubitably from Siam, is known, and probably not more than half a dozen of his from the west coast of the Malay Peninsula.

(1) I am indebted to Mr. Ernst Applebaum for a translation of these letters,

Though Koenig published very little in his lifetime, he left voluminous notes in manuscript, containing material sufficient for many papers. These notes, bequeathed with his collections to Sir Joseph Banks, are now in the British Museum, bound in twenty-one volumes of varying size. If the author's life had been prolonged, no doubt he would have published some of this material, including descriptions of many new species; descriptions which would have forestalled many much later ones. Judging from the index of the subjects in his manuscript, as given by Rendle, Koenig attempted to do far more than he could ever have hoped to complete. The manuscript contains, besides the diary of the voyage, the following items referring particularly to Siam:

VOLUME I.

Catalogue of seeds collected in Siam.

This catalogue is in three separate lists. In the first of these the numbers run to 259, in the second to 203 and in the third to 310. The same names are often repeated in all three lists. Possibly they represent consignments of seeds to be sent in three batches. Many of the items are named to both genus and species, though not a few of the specific names are unpublished ones, given by Koenig, and refer to species of which he gives descriptions elsewhere in the manuscript. Others again, instead of a specific name have a descriptive phrase, added to the genus, or simply its place of origin. Some are still vaguer; such as 'semina dispersa ad viam public Cockren,' or 'Frutex Bankok,' and are evidently simply mnemonics.

VOLUME III.

Plants of the Siam Journey.

Under this heading are numerous Latin descriptions of plants. Some of these are very full, being probably descriptions of those species which Koenig considered to be new, while others are quite short. In many cases an attempt is made to give the Siamese name, which often helps to fix the species; as, for instance where he describes a plant under the name *Croton glandulosum*, giving the Siamese name as *tong taek*, which, with description, indicates the plant now

known as *Baliospermum axillar.* A few Latin descriptions of animals are also included, such as that of a bird which he names *Gracula calva*, Siamese *Nock king kla*, with the remark that the bird abounds near Bangkok. No doubt the black-necked mynah is the species in question.

VOLUME IV.

Description of plants and animals of the Siam journey.

This contains many long Latin descriptions, mostly of plants, and ends with an index to the names.

VOLUME XI.

Chloris Siamensis.

Here is given a list of plants, roughly arranged according to the Linnean System. Siamese names are sometimes given. The botanical names are in much the same case as those of the 'Catalogue of Seeds,' and were probably meant chiefly as an aid to the author's memory. A considerable number of grasses and sedges are included, also some cultivated plants. Approximately 242 flowering plants, 22 ferns and 19 fungi are here listed.

VOLUME XIII.

Plants seen on a journey from Bangkok to Juthia.

This is a list of plant names, with an occasional Siamese name.

VOLUME XVIII.

Chirotonetum itineris Siamensis.

Miscellaneous notes relating to Siam. Here Koenig has various odds and ends, such as his attempts at picking up some knowledge of Siamese, including the Siamese numbers and a short Siamese vocabulary. Mixed up with these are the description of a temple and a list of the marine products of 'Yung Ceylon.'

Finlayson, George (1821-1822).

Finlayson was an army surgeon, who accompanied Crawford's Mission to Siam and Cochinchina as Surgeon and Naturalist. While on the voyage Finlayson collected plants and other objects of natural history. He also kept a journal; or perhaps two, as, judging from

a foot-note in the introduction to his book, he kept a botanical in addition to his ordinary journal. Unfortunately Finlayson, who was in a very bad state of health during a great part of the voyage, died on his way home to England. His journal, excluding the botanical one, was edited and published after his death by Sir Stamford Raffles. His plants were incorporated with the East India Company's collections by Wallich. These are now in Kew. Finlayson's specimens are badly localised, or sometimes not localised at all. In the latter case it is not possible to say with any certainty where the plants came from. It is probable that there are not above 30 plants from Siamese localities preserved in his collection. Finlayson's ill-health was, no doubt, responsible for such meagre results. From the evidence of his journal, most of the Siamese collecting was done on the islands off the west coast of the peninsula, and of the Gulf of Siam. In addition to collecting plants, Finlayson made drawings of some of the more striking. These drawings are now in the Kew Herbarium.

Helfer, Johann Wilhelm (1837-1839).

Dr. Helfer is included here with some doubt, as it is not certain that any of his collecting was done in Siam. We do, however, know that he reached Siamese territory on at least two of his journeys.

Helfer was a young Australian physician who, with his wife, travelled in Syria and Mesopotamia, in the latter with Colonel Chesney's expedition, finally reaching India. While in India he received, through the help of influential friends, a commission to undertake an exploring expedition in the provinces recently conquered from Burma. He was told to organise a plan for it himself, to name the requirements and the salary he should demand. Starting from Moulmein he travelled inland with his wife. On this, his first expedition, Helfer had with him ten hardy young Burmans as collectors, a Malay, a Malabar cook, a Burmese maid for Madame and a Bengal tailor, 'as it was thought indispensable to have one to repair the clothes torn in the jungle.' On this trip he reached the boundary of Siam, but does not appear to have crossed it. His next expedition took him to 'The Three Pagodas, where he could scarcely have failed

to cross over on to Siamese soil. Moreover, we learn that he climbed several mountains in the neighbourhood. Being well satisfied with the results of this expedition, he made a second one to the same place, but on the return journey lost his way and ran short of food before finally reaching Yeh. From Yeh the Helfers visited Tavoy and Mergui. Madame Helfer found Mergui very attractive, and determined to make there plantations of coffee, nutmeg and other spices, and, if possible, establish a colony of her German fellow-countrymen in that area. On the next trip Madame was left behind to look after the plantation, while Helfer himself voyaged down the coast, in and out among the islands, finally reaching the Pakchan River, in April 1839. He only stayed a few days there before returning to Mergui. If he collected any plants on the Siamese side of the river, they must have been few, as he only landed on that side by special invitation of the local Siamese officials. In January 1840 he started on his last expedition, to the Andamans, in company with his brother-in-law, who had come from Europe to assist on the plantation. One morning, while ashore, Helfer and his men were attacked by the Andamanes. They hurried to their boat, which unfortunately capsized as they were getting into it. A poisoned arrow hit Helfer while he was in the water; he sank and was not seen again. This misfortune did not cause Madame Helfer to give up her plans at once. She was evidently a good business woman, and had, no doubt, been the moving spirit of the partnership. After her husband's death she visited Rangoon and induced a banker there to advance money for the financing of the plantation. Next she went to Europe, and visited London, where she managed to get a pension from the East India Company; but her efforts to find anyone in England or Germany to take a financial interest in the plantation failed. Finally her brother got ill and had to leave Mergui, so the plantation was abandoned.

I hope the interest of Helfers' story will excuse this long digression from strictly botanical history. The particulars have been obtained from a book published by Madame.

Dr. Helfer, like many botanists of his day, did not accurately localise his plant specimens, which were distributed from Kew as

from "Tenasserim and the Andamans". Sets of his plants are to be found in Kew, the British Museum and several Continental herbaria. In addition to plants, Helfer made zoological collections, particularly of coleoptera, which were presented to the Prague Museum by his widow.

Hunter, Robert (1857).

Hunter was a well known merchant in Bangkok, with no pretensions to being a botanist. An account of him will be found in *J. S. S.* xi. He is mentioned here because he sent a few specimens of cardamoms to Daniel Hanbury. Some of these eventually went to Kew.

Schomburgk, Sir Robert Hermann (1857-1864).

The botanical collections of Sir Robert Schomburgk are the earliest of any size made in Siam and which are still extant. Schomburgk was born in 1804 at Freiburg in Silesia. During the period 1831-35 he was employed by the Royal Geographical Society of London in exploring British Guiana. In 1840 the British Government appointed him Commissioner for surveying and marking the boundaries of British Guiana. His brother, Richard, by consent of the British Government, accompanied the expedition as a botanist of the Prussian Government. While in Guiana both brothers interested themselves in the flora of the country, Robert publishing several papers on the subject, among them being one on the water-lily for which he suggested the name *Victoria regia*. Each brother wrote a book about British Guiana. In 1844 Robert was knighted for his services. Richard returned to Germany in 1842, but later went to Adelaide where, in 1866, he became director of the Botanic Gardens. He also was knighted. Richard had no connection with Siam; he is only mentioned here as there is liable to be confusion between the two brothers, both botanists and both Sir R. Schomburgk.

In 1857 Sir Robert was appointed H. B. M. Consul in Bangkok, where he remained till December 1864. During this period he interested himself in the fauna and flora of Siam, and also its economic products, particularly these of vegetable origin. His work on the fauna is well known. How keen he was to identify his name with

Siam appears from a letter to the Foreign Office suggesting a tour to Chiangmai and Moulmein, wherein he writes "I feel most anxious, previous to old age and before the effects of my former exploring tours prevent any further expedition of that nature, to connect my name likewise with the East, as I have previously done in the West."

Schomburgk's plant collections in Siam were made chiefly in the neighbourhood of Bangkok and Anghin. I have seen no specimens collected by him on his long trip to Chiangmai and Moulmein, December 1859, to April 1860, which he described in the *Journal of the Asiatic Society of Bengal* (xxxii. 387-399). In a letter to Sir William Hooker, describing this trip, Schomburgk complains of the scantiness of suitable material for collecting, 'a tree or shrub in flower was the greatest rarity.' In this respect he seems to have been particularly unfortunate. No doubt he was riding on an elephant most of the time, which would account for his missing any but the most conspicuous flowers. In Moulmein he had the pleasure of meeting a kindred spirit, Rev. Charles Parish, who will be referred to later. On the return journey, via Tavoy and Kanburi, the party met with very heavy rains on the Burmese side of the hills, and, moreover, they had very little protection, as they could only obtain unroofed howdahs in Tavoy. Some collecting, both botanical and zoological, was, however, done on this expedition, as Schomburgk writes on his returned to Bangkok: "But what became of the collections—the less said the better. The hides which covered the packets were actually soaked, but few of the plants were saved, many of the birds' skins rotten. . . . I have been so disheartened by my ill-luck that I have not even assorted as yet plants that I have saved." Whether these few plants were ever assorted seems doubtful from my previous remark on the subject.

Sir Robert sent his dried plants directly to Kew, and *via* Kew sets went to Berlin and Paris. The number of his Siamese plants at Kew amounts to about 240. He did not live long to enjoy his retirement, as he died March 1865 in Berlin. A genus of tropical American orchids was named by Lindley *Schomburgkia* in his honour.

Something should be added about his interest in Siamese vegetable products. Schomburgk sent to England samples of such

products as tobacco, cotton, silk and indigo for examination by experts. Some account of the results of these examinations will be found in vols. i, ii and iv of *The Technologist*.

Parish, Charles Samuel Pollock (1860).

The Reverend Charles Parish was for many years chaplain to the forces in Moulmein. His chief hobby was the making of a collection of living orchids and ferns, mostly obtained from the surrounding district. He made very careful coloured drawings of his orchids. These drawings are now in Kew, and are of considerable interest to Siamese botanists, as a large proportion of the species also occur in Siam.

His claim to be considered in this list is that he visited the Three Pagodas and collected some plants in Siamese territory. These plants, probably not more than a dozen in number, are at Kew. They are not localised beyond the vague statement 'Siamese States.' He has another claim to be remembered in Siam, for he baptised Mrs. D. J. Collins, the doyen of our present day Siamese botanists.

Teysmann, Johannes Elias (1862).

J. E. Teysmann, well known for his work in Buitenzorg and for the collection made by him throughout the Dutch East Indies, took the opportunity of accompanying to Bangkok a Dutch Commissioner, under Mr. A. London, in the hope of learning something of the botany of Siam. Though he remained but a short time in the country, from March 12th to April 2nd 1862, he managed in those few weeks to considerably augment the knowledge of its flora.

Most of the information concerning this visit has been obtained from an account published by Teysmann in the *Naturkundig Tijdschrift voor Nederlandisch Indie* (xxv. 149-208) soon after his return to Java.

In Bangkok Teysmann naturally met Sir Robert Schomburgk, who gave him seeds and cuttings of various plants for trial in Java. As he was not likely to learn much of the flora of Siam while remaining in Bangkok, Teysmann made arrangements to get out of the city as speedily as possible. Accordingly, on 16th March, he left by boat.

for Ratburi, accompanied by Mr. P. Diard with some Annamese who were to collect birds and mammals for the Royal Museum at Leiden. The zoological collections were preserved in spirit, but a vulture shot on the third day took up most of the remaining room in their spirit cask. Ratburi was reached March 18th. As transport for the continuation of the journey could not be obtained at once, Teysmann visited a small hill nearby, where he collected a number of plants. On March 21st the expedition set off from Ratburi with 5 elephants, and reached Kanburi on the 23rd. Teysmann did not enjoy riding on an elephant, so in Kanburi he hired a pony which he used in his collecting trips from that town. On 26th March the return journey was started, Ratburi being reached on the 28th. The next day Teysmann left by boat for Petchaburi. On reaching Petchaburi 31st March, he found a letter awaiting him to say that the Commissioner was leaving Bangkok on April 2nd. Arrangements were made at once for a boat, but while awaiting this he visited the cave hill, where he came across a handsome *Lagerstroemia* in flower and seed. This he afterwards named *Lagerstroemia Loudonii*, in honour of the Dutch Commissioner. That evening he left Petchaburi, reaching Bangkok in the morning of April 2nd, just in time to catch his boat.

Teysmann gives at the end of his paper a list of the plants collected, but only approximately named. This list includes 109 herbarium specimens, 28 living plants, and seeds of 25 species,—a notable achievement in the short time available. The dried plants are in the Buitenzorg herbarium with a few in Utrecht, as Dr. Van Slooten has kindly informed me. Many of the living plants and seeds from Siam were cultivated at Buitenzorg and described later in various publications, as were the many new plants among the herbarium material.

Thorel Clovis (1867).

Thorel was, in 1861, appointed assistant-surgeon in CochinChina, where for five years he explored and collected plants in the neighbourhood of Saigon and Lower CochinChina. In 1866 he was attached, as anthropologist and botanist, to the expedition of Doudart de Lagrée and Francis Garnier, then about to start on the exploration of the Me

Kong. With the exception of some detours partly overland, the expedition made its way up the river by boat, at least till beyond the confines of Siam. One of these detours has particular interest for us; that which ascended the Nam Mun to Ubon, and thence proceeded overland to Kemarat, during the period of January 1st to 20th 1867. Thorel collected on this detour as well as during the voyage up the Me Kong. It is not always easy to know from the labels which plants were collected on the French and which on the Siamese side. It may be assumed that little or no collecting was done on the Siamese side after the party left Wieng Chan on April 3rd. Beyond Luang Prabang, owing to shortage of transport, all collecting had to cease. His total collections for the voyage amounted to over 2000 species. At a rough estimate, based on the records given in the *Flore Générale de l'Indo-Chine*, Thorel collected about 900 numbers within Siamese territory. The whole of Thorel's collections, comprising 4200 numbers, are now in the National Museum, Paris.

Thorel retired to France, where he died in 1911. A genus of Compositae, *Thorelia*, was named in his honour by Gagnepain.

For much of the above information, as well as for particulars regarding Dr. Harmand, to be considered later, I am indebted to Mons. Gagnepain.

Pierre, Jean Baptiste Louis (1868).

Pierre's name will always be associated with the flora of French Indo-China, which he did so much to elucidate; but it must also be remembered that he was one of the pioneer botanical explorers of Siam. The particulars of his life are largely taken from an obituary notice by Mons. Gagnepain in the *Nouvelles Archives* of the Paris Natural History Museum (1906), and from the *Kew Bulletin* of 1906. Pierre was a sugar planter in the Isle of Bourbon till he reached the age of thirty-one; then, owing to an economic crisis, he gave up planting and went to India. There he became attached to the Calcutta Herbarium, and began to take a serious interest in botany. After remaining in Calcutta for two years, he left, in 1864, for CochinChina. In the following year he was appointed director of the Saigon Botanic Gardens, which he himself

had to create. In order to introduce plants to the gardens he made, at his own expense, a number of expeditions in Cambodia and CochinChina, collecting dried plants as well as living. An opportunity to visit Siam came in 1868, when he was attached to the French Commission charged with the observation of the solar eclipse of August 18th 1868. Starting from the town of Ratburi in June, Pierre made his way south along the coastal region, travelling with two bullock carts, under very uncomfortable conditions. The time of year that the journey was made must have added to its difficulties. Pierre himself does not seem to have left any account of this expedition, beyond what can be gathered from his labels and from verbal information given to Mons. Gagnepain. His destination was Wa Ton, a village close to the coast, about 11 kilometres south of the present railway station at Prachuap, and some 213 kilometres from Ratburi. It was at Wa Ton that the French Party for the observation of the eclipse was stationed. Pierre collected along his route and in the neighbourhood of his destination. Most of his localities can be readily recognised on modern maps. Among those which might give rise to difficulties are: 'Mountains of Cholai,' probably Kao Chao Lai (เขาเจ้าลาย), hills close to to Ban Cha-Am; 'Mount Luang,' evidently Kao Luang (เขาหลวง), the high mountain on the border to the S. W. of Prachuap; 'Kohy' is Kui (กุย). In his *Liste des plantes connues du Siam*, under *Dracontomebum mangiferum*, Williams implies that Pierre visited Chantabun. This is not borne out by a reference to Pierre's own words under that species in his *Flore Forestière*.

After his retirement in 1877 Pierre continued his botanical studies in Europe. In 1879 he started the publication of his monumental work, the *Flore Forestière de la Cochinchine*, which continued to appear in parts till 1899, when the twenty-fifth was published. Then, though not half finished, the work came to a standstill, owing to insufficient financial support. Pierre died in Paris in October 1905.

Judging from his numbered labels, Pierre must have collected some 200-300 numbers in Siam. A considerable number of new species were described from these plants, which are now in the Natural

History Museum, Paris. Some duplicates are to be found in Kew and other herbaria.

Findlay, James (1868).

This name qualifies for inclusion here on the ground of a single species, *Dendrobium Findlayanum*, which was discovered by 'Mr. James Findlay, a merchant trading in Burma, while on a journey to Chiengmai in 1867-68.' It was found growing on the higher parts of the mountain range separating Burma from Siam. There is very little doubt that it was from the Siamese side of the border, where it is still to be found on the hills between Muang Yuam, the old road from Chiengmai to Burma.

Wawra v. Fernsee, Dr. Heinrich Ritter (c. 1872-1873).

Dr. Wawra accompanied the Princes of Saxcoburg-Gotha on their travels round the World in 1872-73. From the published account of these travels, it does not appear that the Princes got any nearer to Siam than Penang and Singapore. Moreover, no Siam plants are mentioned in the lists of plants published with the account of the travels. A number of plant records, however, have been published as '*Wawra, Bangkok.*' There may be about a dozen of these, which are, presumably, in Vienna. It is not unlikely that these plants were sent to Dr. Wawra by some friend in Siam.

Harmand, Jules (1877).

This keen naturalist, who started his career as a surgeon in the French Navy, finally rose to a high position in the Diplomatic Service, becoming the French Ambassador in Tokio. His first leanings seem to have been towards botany, but later, in Japan, he made valuable collections of mammals, birds, reptiles, and, especially, insects.

Harmand's early years of service were in French Indo-China, where he was attached to various missions, scientific and military. His only collection of Siamese plants was made in 1877, when he travelled up the Nam Mun, reaching Sangka in Surin province.

The total number of his Siamese plants is probably about one hundred, which are now in the National Museum, Paris. The genera

Harmandia Pierre (Oleaceae) and *Harmandiella* Cost. (Asclepiadaceae) were named in his honour.

Harmand died at Poitiers in January 1921.

Fox, Walter (c. 1879).

Fox was an assistant in the Singapore Gardens, who collected a few plants in our area, at Trang, Takuapa, Langkawi, Puket and Satul. The plants of his collecting in Siamese territory, as listed by Ridley in his *Account of a Botanical Expedition to Lower Siam*, amount to only about two dozen. These are in the Singapore Herbarium.

Kunstler, Hermann (1881).

Kunstler was sent in 1881, by the Royal Botanic Gardens, Calcutta, to collect plants in the Malay Peninsula. Most of his collecting was done in the state of Perak, but he paid a visit to Trang in March 1881, and there collected about 50 numbers. In the *Materials for a Flora of the Malay Peninsula* he is referred to as 'King's collector.' His plants went to Calcutta, whence sets of duplicates were distributed.

Murton, Henry James (1881-1882).

Murton, a young gardener trained at Kew, arrived in Singapore in 1875, to take charge of the gardens there. He set himself to lay out the gardens with energy and skill. Their present beauty is largely due to his carefully planned foundations. Murton has still greater claims to fame for his share in the introduction of economic plants to the Peninsula. His plantings of Para rubber yielded the parents of many of the trees planted later. Though a good gardener he does not seem to have been a good business man, for carelessly kept accounts got him into trouble with the authorities, so he had to leave the gardens. For most of the above information I am indebted to manuscript notes which Mr. Ridley kindly allowed me to see. It may be remarked that Murton was not the first gardener to get into trouble with the authorities in Singapore, and it may be doubted if the fault always lay entirely with the gardeners.

In July 1881 Murton left Singapore and went to Bangkok, where, through the help of Mr. H. Alabaster, he received an appointment in the Royal Gardens. At this time preparations were being made for an exhibition to celebrate the centenary of the foundation of the dynasty. One of Murton's first duties was to collect living orchids and other ornamental plants for this exhibition. With this end in view, in December 1881, he accompanied the King on a voyage down the Gulf, which Murton found disappointing, as he got very few opportunities of going ashore to collect. In February 1882 he took a trip down the east side of the Gulf to Chantabun, whence he went inland, reaching at least the foot of Kao Soi Dao. This trip lasted three weeks and yielded twenty-three cases of orchids, 'mostly Dendrobies in bloom.' The following April he voyaged down the west coast of the Gulf, and 'got a shipload of *Cypripediums* &c, and *Nepenthes*,' as he relates in a letter to Sir William Thiselton Dyer, dated in June. In the same letter he speaks of a projected tour in Northern Siam, to start about November. This tour never took place as Murton died suddenly in Bangkok, on 20th September, 1882, at the early age of twenty-six.

While collecting living plants for the exhibition, Murton found time to collect a few dried ones, on both coasts of the Gulf, but chiefly on its eastern side. The number of dried plants he collected in Siam amounts to about 140. Many of these plants were not at the time identified, among them being the well known *Jasminum Rex*, which did not receive its name till some forty years later. His dried plants are now in Kew. There do not appear to have been any duplicates.

The genus *Murtonia* (Leguminosae) was named in his honour by the late Professor Craib.

Alabaster, Henry (1884).

Alabaster came out to Bangkok in May 1858 as a student interpreter in the British Consulate. Later he joined the Siamese Government Service and became 'Director of the Royal Museum and Garden.' He is known rather as a student of Buddhism than as a botanist. That he took an early interest in the flora of Siam is, however, suggested by the fact that Pierre proposed to call one of his

Siam plants *Illipe Albasteriana*, a name which was never published. The plant has since been described as *Bassia Pierrei*. Alabaster took a great interest in orchids and got together a large number of living plants of that family.

Alabaster died unexpectedly in Bangkok on August 8th 1884. But two days before his death he had written to Kew advising the dispatch of a wardian case containing orchids and other plants. Some of these had been collected by himself, others by the late Mr. Murton. Neither the letter nor the case had been dispatched before his death, but they were forwarded to Kew soon afterwards by Dr. Frankfurter.

Roebelen, Carl (1886-1926).

Carl Roebelen spent many years of his life collecting orchids and ornamental plants in the Eastern Tropics. His earliest hunting ground was the Philippines, which he first visited about 1880. Besides the Philippines, he collected in many other countries of S. E. Asia before making Bangkok his headquarters, about 1886. From Bangkok he continued making expeditions, both in Siam and neighbouring countries, till his final trip, when he left Bangkok in November 1926 and died in the jungle north of Wiengchan early in the following January. As far as the writer knows, he collected no dried plants. As is usual with commercial collectors, he did not localise his finds precisely, generally not further than the country of origin. Further particulars of Roebelen, and some of the notable plants found by him will be found in *J. S. S., Nat. Hist. Suppl.* vii. 132.

Curtis, Charles (1889-1899).

Between 1878 and 1884 Charles Curtis made several plant-collecting expeditions for Messrs. James Veitch and Sons, visiting Mauritius, Madagascar, Borneo, Sumatra, Java and the Moluccas. In 1884 he was appointed Superintendent of Gardens and Forests, Penang. Besides collecting in Penang and the Malay States, he made a number of expeditions into our area. The first of these was in 1889, to Langkawi, an island to which he made many subsequent trips. He also paid visits to Terutao, Tunga, Krasom, Pang-nga, and Takuapa. His

last trip to Langkawi seems to have been made in 1899. On these last trips he made valuable collections of dried plants, as well as living plants for the gardens under his charge. His dried plants are now in the Singapore herbarium. At a rough estimate, he collected about 200 numbers of dried plants in Langkawi and Siamese territory.

Curtis retired from the East in 1903 and died on 16th August 1928.

Keith, Arthur (now **Sir Arthur**) (1889-1891).

Dr. Keith came out to Siam in 1889 as medical officer to The Gold Fields of Siam Limited, which had a concession in the Bangtapan district. Before leaving home Dr. Keith determined, as he wrote to Sir Joseph Hooker, to work at the flora of the district in which he might be located. On arriving in Bangtapan, he set to work to make good his determination, though that was by no means his only interest outside his official duties. He foreshadowed the work which was afterwards to make him famous in a paper on the anatomy of apes, and he has left us an interesting account of the general features of the districts of Kuwi, Bangtapan, Patiu and Chumpawn. Particularly noteworthy are his remarks on the grassy hills south of Bangtapan Noi, as he was able to get an account from eye-witnesses of the great typhoon which swept that part of the country and levelled the trees [see *Journ. Str. Br. Roy. As. Soc.*, No. 24, 71 (1891)].

In Bangtapan and its neighbourhood Dr. Keith collected about 500 numbers of dried plants. This was the first fairly full collection of flowering plants throughout the year of a single district so far made in Siam. These plants are now in the Singapore herbarium.

Dr. Keith also paid a short visit to the east coast of the Gulf, including Chantabun and Krat, but does not seem to have collected any dried plants there. An account of his Bangtapan collections is given in Mr. Ridley's paper on the Flora of Lower Siam. [*Journ. Str. Br. Roy. As. Soc.*, No. 59 (1911)].

Bradley, Cornelius Beach, and Mrs. Bradley (1890).

Professor Bradley is well known to readers of this Journal as a philologist. His interests, however, were wide, and plants always

had an attraction for him. In 1890, on one of his visits to Siam, he and Mrs. Bradley made a collection of plants. This collection, as Dr. Merrill tells me, was made in the vicinity of Bangkok, and consists of about 200 numbers. It is now in the herbarium of the University of California.

Smiles, Frederick Henry (1891-1895).

Smiles came out to join the Royal Survey Department of Siam in 1891. Going on leave to England in 1894, he took with him a collection of about 1000 dried plants, made in the mountains of the northern part of what was then Siam, and presented it to Kew. This collection was found to contain some interesting and undescribed species. Encouraged by the interest shown in his plants, Smiles returned to Siam with the intention of making further botanical collections. Unfortunately he did not live to carry out this intention, as he died of dysentery in the field, near Korat, in May 1895. His collections were made almost entirely in territory that is now part of French Laos. Probably not more than half a dozen of his plants came from within the bounds of present day Siam.

Orleans, Prince Henry of (1892).

At the conclusion of his journey through Tonkin and Laos, Prince Henry travelled overland from Paklai to Utaradit (April 22nd to 30th 1892), and then by boat down to Bangkok. He collected a few plants in Siam, perhaps half a dozen, very imperfectly localised. These are in the National Museum, Paris.

Haase, Dr. E. (1893).

This is a collector about whom I have been able to find very little. Major Stanley Flower has kindly supplied me with the following information, mostly hearsay, as he says: Dr. Haase was a student and presumably graduated at a German university. He had a brother, and either he or his brother, or both of them, wrote some scientific papers published in Germany late in the 19th century. Dr. Haase came to Bangkok, date unknown, and become Scientific Adviser to the Royal Siamese Museum. He collected some animals and plants,

He visited Chantabun, and is said to have died in the Wang Na, Bangkok. He was succeeded by a Dane, who died on the west bank of the Menam. I was the next Adviser, Dec, 1896 to August 1898. I found in the Wang Na some dried plants that had been collected by Haase. With the permission of the Siamese authorities I sent these to the British Museum". The plants in the British museum, 92 in number, have the date 1893. It is possible that further collections made by Dr. Haase may be stored in some German museum,

Goldham, C (1895).

Goldham was an educational officer stationed at Ipoh and Kuala Kangsar, whence he sent specimens to Singapore. He paid a visit to Trang in 1895, and collected a few plants there, probably not more than a dozen. These went to Curtis, and are now in the Singapore herbarium.

Here I must acknowledge my indebtedness to Mr. Burkill's paper on Botanical Collectors in the Malay Peninsular [*Gards. Bull-Str. Stls.* iv. 113-202 (1927)], which has supplied me with much of my information concerning Goldham and other collectors who came up to Siam from the Malay States.

Ridley, Henry Nicholas (1897).

Most of Mr. Ridley's collecting in Siam was done after our period, but he is included here as in 1897 he made his first visit to Langkawi. This collection, as well as the more extensive collections, obtained later in Siamese territory, is in the Singapore herbarium. Mr. Ridley's distinguished services to the botany of the Malaysian region will be found summarised in the *Straits Gardens Bulletin* volume ix, part 1, part 1, which is dedicated to him on the occasion of his eightieth birthday.

Candler, Edmund (1897-1898).

Candler, well known as a traveller and author, seems an unlikely person to be a collector. Indeed, in the introduction to his book, *A Vagabond in Asia*, he says "I speak as a vagabond, have no mission or message, have added nothing to science, made no collection

or maps." Unfortunately perhaps he did not keep to his word, but made a small collection of unlocalised plants, perhaps a dozen, in crossing from Tavoy to Kanburi. These plants are now in Kew. It is not possible to say with any certainty which were collected on the Burmese side and which on the Siamese.

Zimmermann, R. (c. 1898).

I have found very little information about this collector. For most of the details here given I am indebted to Sir Arthur Hill, the Director of Kew, at whose instance Mr. S. A. Skan made a search through a number of reports. From these investigations it appears that, for the years round about the year 1900, a Zimmermann was Government Botanist in the German Settlement at Tsingtao. He is recorded as having sent botanical material to Berlin from Tsingtao and also from Bangkok. The Bangkok reference is from a report for 1891/99. There is no doubt that this is the man who made collections in Bangkok, and not Dr. Albrecht Zimmermann, as Williams has suggested.

Zimmermann collected about 180-200 numbers in or near Bangkok. These were made up into sets and sold to various institutions. A large proportion of his plants are cultivated ones, and the others such as could be readily obtained in and around Bangkok.

Gwynne-Vaughan, David Thomas (1899).

Gwynne-Vaughan, at the time Assistant Professor of Botany in Glasgow University, joined the Skeat Expedition of 1899 to the Malay Peninsula as Botanist. His previous work had been chiefly anatomical botany, but, in 1897, he had made a trip to N. Brazil, where he made a small collection of plants. The Expedition started work in March, in the Tale Sap of Nakawn Sritamarat Circle, traversing its length and visiting its islands. Returning to Singora, the party went by sea to Pattani, and thence travelled southwards through Jalor (Yala) to Kota Baru, spending a week on Bukit Besar (Kao Kalakiri) on the way. At Kota Baru the Expedition was requested to return to Pattani, and, after spending a fortnight in that town, the whole Expedition commenced a journey through Jalor,

Rahman, Legeh and Kelantan, in search of Gunong Tahan, the highest mountain in the Peninsula.' Judging by its transport, which consisted of forty elephants, the expedition must have been organised on a generous scale. It appears that the delays and changes of plan were chiefly occasioned by the search for Gunong Tahan, which it did not finally fall to the lot of the Expedition to ascend. From the botanical point of view, the results of such expeditions with multifarious aims are apt to be disappointing. In the present case an examination of the plants collected would not give the impression that the Expedition had traversed a country largely covered with rich and lofty forests, material from large forest trees being very scantily represented.

The particulars of the movements of the Expedition are mainly taken from a paper in the *Scottish Geographical Magazine* (Sept. 1900) by Nelson Annandale, who was junior zoologist to the Expedition. On this occasion Annandale did not collect plants, though he did do so when he revisited the country in 1916.

Gwynne-Vaughan collected on this expedition about 450 numbers, his numbering starting at 201. Most of his plants must have been obtained on Siamese territory, as he left the Expedition soon after it crossed the border into the Malay States. Sets of his plants are at Kew and Cambridge. Gwynne-Vaughan became Professor of Botany in University College, Reading, where he died in September 1915.

Schmidt, Johannes (1899-1900).

In the latter half of December 1899 a Danish Scientific Expedition arrived in Siam, with the object of studying the botany and zoology of Kaw Chang, an island off the east coast of the Gulf of Siam. Dr. Johs Schmidt was the botanist of the Expedition, while Dr. Mortensen was the zoologist. Work on the island commenced in the fourth week of December, and continued till towards the end of the following March. Schmidt set himself to collect as thoroughly as possible not only the flowering plants of the island, but also the cryptogams, including the marine algae, fixed and floating, macroscopic and microscopic, of the surrounding sea. Such an extensive survey had not been previously attempted anywhere in Siam, nor has any

one man since gone over such wide grounds. In addition to collecting, Dr. Schmidt made important ecological studies, particularly of the mangrove vegetation. Though the Expedition only remained three months on the island, the botanical harvest was rich and must have entailed hard and constant work. The resultant collections included 521 species of flowering plants, of which 57 were described as new; 72 ferns, including 6 new; 61 mosses, 23 new; 669 algae, 38 new; 95 lichens, 39 new, and 95 fungi, 31 new.

Thirty-seven botanists took part in naming the material collected by Dr. Schmidt, a task which lasted fifteen years. The results were published, under the title "Flora of Koh Chang" in the *Botanisk Tidsskrift* [xxiv-xxxii (1901-1915)]. The collections are in the University Botanical Museum, Copenhagen.

Dr. Schmidt, as is well known, later made his name as an oceanographer. It will be remembered that, in April 1929, he gave a lecture to the Siam Society on the migration of eels. He died in Copenhagen in February 1933, at the age of fifty-six.

Haniff, Mohamed (1900).

Mohamed Haniff was trained under Curtis in the Penang Botanic Gardens, becoming later Overseer of the Gardens. He assisted in numerous field expeditions for collecting plants, making several visits to Siamese territory for that purpose. The first record I have found of his collecting in our area and period is that Curtis sent him to Langawi in 1900. Later he made collections to several places in Siam, chiefly on the west coast of the peninsula; sometimes by himself, sometimes accompanied by Mohamed Nur.

His collections are in the Singapore Botanic Gardens. Some duplicates have been distributed to other herbaria.

Haniff retired in 1926, after 36 years service, and died March 1930.

Principal works consulted

(Additional to those specified in the text)

The Mission to Siam and Hue

by George Finlayson, with a memoir by Sir Stamford Raffles,
London, 1826

Travels of Dr. and Madame Helfer

by Countess Nostitz. London, 1878

Voyage d'Exploration en Indo-Chine

by Francis Garnier. Paris, 1885

Itinera Principium S. Coburgi

by Dr. Gunther Ritter v. Beck. Wien, 1885

Around Tonkin and Siam

by Prince Henry of Orleans.

English translation by C. B. Pitman. London, 1894

Dictionary of National Biography

