

RELIQUIAE KERRIANAE

by

M. JACOBS

(Rijksherbarium, Leiden)

(Issued 15. XII. 1962)

Contents

	Page
Summary	428
Introduction	428
Biographical sketch	429
The prelude	429
The years at Chiangmai	430
The interval at Bangkok	433
The Botanical Section	434
The results	436
The later years	438
The man	440
A. F. G. Kerr's bibliography	441
A. Tour Reports	441
B. Taxonomic contributions	442
C. Contributions in "General View of Siam 1926" and in "Siam, Nature and Industry"	443
D. Miscellaneous botanical papers	443
E. Miscellaneous non-botanical papers	444
F. Reviews of books and papers	445
Publications devoted to A. F. G. Kerr or to his collections	446
Kerr's numbers	446
General Herbarium and Orchid Herbarium	446
A-, B-, and C-numbers	447
Belated numbers	447
Cryptogams	448
Unnumbered specimens	448
Kerr's collections	448
Phanerogams and ferns	448
Mosses	449
Animals	449
Kerr's localities	449
Introduction	449
List of places frequented by Kerr	449
Kerr's Itinerary	450
Kerr's List of geographic names	467
Other collectors in Siam	476
Acknowledgements	485

SUMMARY

A. F. G. Kerr (1877—1942) worked in Siam between 1902 and 1932, originally as a doctor, later as government botanist. He made large botanical collections in Siam and surveyed the whole of that country. Our knowledge of the flora of Siam is mainly based on his collections (now completely represented at Kew and in the British Museum), which formed the materials for the *Florae Siamensis Enumeratio*.

A sketch of his life and career is given, also a bibliography, including special publications devoted to Kerr or to his material and details about his collections; by means of an Itinerary the date can be found of any Kerr number as well as the locality with approximate longitude and latitude, and by means of a list originally prepared by Kerr himself and here posthumously published, for each geographic name the province and the region of Siam where it is situated.

Several persons were inspired by Kerr to make botanical collections themselves, notably Anuwat, Bourke-Borrowes, Mrs. Collins, Garrett, F. H. W. Kerr, Lakshnakara, Marcan, Noe, Put, Rabil, Rock, Eryl Smith, H. M. Smith, Vanpruk, Winit, Yuang. Some information about these persons and their collections has been added.

INTRODUCTION

To most botanists, the name Kerr recalls little more than a man who made large botanical collections in Siam and who annotated these in an awful handwriting. Certainly many others, in Thailand, still remember thankfully his services as a doctor. His name is connected with the '*Florae Siamensis Enumeratio*', and also survives in a number of scattered and obscure publications, as scattered and obscure as the localities themselves where he gathered his plants, and botanists have been brought to despair when such localities had to be traced. Nevertheless, Kerr was a most methodical of men, whose obvious wish it was that everything regarding his collections should be clear and intelligible to others. His journals comprise over 4,000 pages altogether and in them he wrote down everything of interest he saw on his travels, which led him to every corner of Siam. He even noted the time, precisely to the minute, of many of his doings.

Without him, hardly any knowledge would exist about the flora of the country which he served for more than 25 years as a doctor who turned into a botanist with over 21,000 collections to his credit. Yet, botanical literature provides no more than three small publications about him¹⁾, two of which are difficult to obtain, and none of them gives a nearly complete picture of this singular and outstanding naturalist.

This paper will, it is hoped, be of help in locating his collections, and give a better idea who this man was and what he did to deserve such a prominent place in the botanical history of South East Asia.

¹⁾ See p. 446.

BIOGRAPHICAL SKETCH

The prelude. Arthur Francis George Kerr was born on 7 February 1877 at Kinlough, a village in the county of Leitrim, in the northwestern corner of Ireland, near Donegal Bay. His father, Elias William Kerr (1849—1920)²⁾, was of Irish stock; the origin of his mother was partly Scottish. He had one elder sister and five younger brothers, and all of these were to travel far and wide. The father was a doctor, who in time moved to Dorset in South England, where his youngest son, F. H. W. Kerr, was born; he was so poor that his children had to study on scholarships, which three of them did at Trinity College, Dublin.

The eldest boy was fond of the country, walked for miles and miles, and indulged in bird's-nesting. It was his father's hope that he would succeed him as a doctor, and he went to study medicine in Dublin. There, at Trinity College, he made great friends with Professor H. H. Dixon³⁾, and he took a B. A. degree in botany, with first class honours, in 1897. At that time F. W. Burbidge (1847—1905) was in charge of the botanic gardens which flourished under his hands, but although it seems probable that they knew each other well, Kerr is not known to have ever referred to the famous gardener.

In his youth, Kerr suffered from a form of tuberculosis in his right elbow, which somewhat limited the use of his arm for his future life. It is possible that this accounts for his handwriting, which is hardly legible at first sight, but when his daughter complained about it, his reply was: "I had to take a lot of medical notes!" When he had taken his Medical Degree in 1901, he made a journey to Australia, as a doctor on a sailing ship. This was considered a healthy cure for his arm, and apparently was effective.

In the next year, when he was 25, he went to Siam, as the assistant of Dr. Hugh Campbell Hightet⁴⁾. Professor Dixon had helped him to find this job⁵⁾. Dr. Hightet's wife was Mary Lilius Judd, whose sister, 18 year old Daisy Muriel (Dick) Judd came out to stay with the Hightet family. On the boat, she met her brother-in-law's future assistant, Arthur Kerr. In August 1903, when Kerr had received an appointment as Medical Officer of Health in Chiengmai, they married.

She is described as a lady of considerable beauty, and, like her husband, of very quiet tastes, not caring much for dancing, games, or other amusements. That they did, however, take a part in social life is confirmed by many a

²⁾ In English the name is pronounced like car.

³⁾ 1869—1953, plant physiologist, professor at Trinity College, Dublin, one of Kerr's closest friends. *Dendrobium dixonianum* Rolfe ex Downie was named after him. Not to be confused with H. N. Dixon (1861—1944), the bryologist, who worked up Kerr's mosses.

⁴⁾ 1866—1929; after 5 years of practice at Singapore he had come to Bangkok in 1897 as a physician to the British Legation. He became Principal Officer of Health to the Siamese Government in 1904, he introduced smallpox-vaccination in Siam and it was on his instigation that a central piped water supply was established at Bangkok in 1912. Publications of his hand are in the Journal of the Siam Society. When he retired from Siam in 1919 he settled in England as an ophthalmological surgeon.

⁵⁾ No more about the circumstances could be found out than a passage in a letter, here reproduced on p. 492.

note in Kerr's diary; thus at a fancy dress dinner at Chiengmai on 10 January 1920 she went as an Egyptian woman, he as an Arab, and they got one of the three first prizes.

The years at Chiengmai. Once at Chiengmai, in the green hills of North Siam, the doctor presently developed a love for orchids. After having collected them on his trips in the vicinity, he then grew them at home. And it was by making sketches of those living orchids that Kerr started his botanical work. These sketches were made in pencil, on ruled folio paper (bound into two big books which survive at Kew), and numbered consecutively from 1 onwards. The first sketch is dated 15 January 1904, and it depicts an *Eria pulchella* so skilfully, that we may suppose that, after several encouraging attempts, he had decided now to start in earnest. To the sketches he added flower analyses and descriptions, some of them very extensive. This series bears consecutive dates; obviously Kerr made these drawings at home, sketching and describing each other species as it came in flower. By the beginning of 1908 he had done 215 species this way, and had made notes about 6 more; he then went on leave to Europe.

On these trips he did more than gathering orchids; it was on these occasions that he trained himself as a surveyor. In the map collection of the Kew Herbarium (folder 120) we find a number of maps which he drew carefully in ink on very thin, now yellowed, paper. They present the course of rivers and trails he followed, with indications of the hills and villages. Alongside the place names the dates when he passed are recorded, and as the maps are blank except for the course of his own track, we may conclude that he did not write up anything that he had not seen with his own eyes. The maps are from the neighbourhood of Raheng (24 IV 1906), Muang Fang (3 VII 1906), Chieng Rai (20 VII 1906), and other places in northern Siam, some quite far from Chiengmai. In his later notebooks there are also fine topographical sketches of mountain-ranges, of which he took bearings with a prismatic compass, and he constantly used an aneroid barometer for the determination of altitudes. Part of his documentation was done by photographing, mainly of landscapes and vegetations.

Siam was at that time, when the Flora of British India had already been completed for several years, a practically unexplored country, no more than roughly mapped by the Indian Survey. Owing to the fact that Siam had never been a colony, Kerr had such a virginal field of study before him, that there was a reason even to record and, subsequently, to publish his Meteorological Observations made at Chiengmai 1910—1914.

On his first leave to England, he took the orchid sketches with him and showed them to Mr. R. A. Rolfe, the orchidologist at Kew. It is apparent that Rolfe became enthusiastic, and spoke to Sir David Prain, the director; and Dr. O. Stapf, the keeper of the Herbarium, who realised the possibilities, urged Kerr to collect herbarium specimens of all sorts of plants, and provided him with equipment for that purpose, which on 12 September 1908 he acknowledged in a letter to Prain.

It is significant for Kerr's enthusiasm that he collected his first specimen at Paknampo. In those days, one could, when travelling from Bangkok to Chiengmai, go no further by train than there, and had to continue by boat up the Me Ping. Kerr took his first specimen on 1 December 1908,

and when he arrived at Chiangmai a fortnight later he had collected eight.

On 25 February 1909 he wrote to Prain: "My collecting will go on very slowly as I can only get a day in the mountains once a month or so As this is my first attempt to collect dried plants you will find I am sure that many of my methods require improving If the material is sufficient I should be very much obliged if you would send named duplicates to Prof. Wright in Dublin". On the bottom of the letter there is a note made by O. S. (tapf): "The plants are in first rate condition!"

On 26 May 1910 he wrote to Prain to thank him "for the lists of identifications which I am frequently receiving". These lists were prepared by W. G. Craib (1885—1933), who then was on the staff of the Kew Herbarium. With his characteristic generosity Kerr was later to write (Kew Bull. 1933: 409): "the stimulus of Craib's letters to the collectors in the field was largely responsible for the continuance of collecting". When it became apparent that Kerr's collections contained many novelties, it was decided at Kew that Craib would start to publish the results. The first of these "Contributions to the Flora of Siam" was a list of all the plants thusfar known, by Craib in Kew Bull. 1911: 7—60, 385—474. The list was preceded by a small paper by Kerr on the Flora of Doi Sutep. The following Contributions to the Flora of Siam appeared regularly, giving descriptions of new species as additions to Craib's List of 1911.

Kerr had a good field for study at hand, for two miles west of Chiangmai is the foot of Doi Sutep⁶), a dome-shaped mountain of 1676 m, which is for Siam comparatively high. In the course of time Kerr explored every corner of it. He built a hut at 650 m on the northeastern slope at a place named Hui Chieng Kien, and went collecting every time he had a few days to spare.

The river journeys gave him other good opportunities⁷). When such a

⁶) Doi is a word for mountain, Sutep means 'beautiful angel'. See also p. 451.

⁷) A description of the fascinating journey by what till 1921 was Siam's traffic artery between North and South, is given by C. C. Hosséus in his book "Durch König Tschulalongkorns Reich" (Stuttgart 1912) xii + 219 pp., 125 phot. Hosséus visited the country twice between August 1904 and January 1906, mainly the northern part, also the eastern, and Bangkok. He ascended Doi Sutep, Doi Angka, and Doi Chiengdao. The first botanical collections from northern Siam were made by him, as he himself did not forget to stress; his material is in Munich, duplicates are at Kew (p. 75; see also Fl. Mal. I, 1: 247).

From several dry comments made by Kerr in his private copy it can be seen that botanical and other facts have not always been recorded to perfection. Moreover, the writer liked to make it known that his mind was drenched in German nationalism, which evokes some feelings of amusement and pity with the civilised reader.

Hosséus received much help from Kerr, who, on p. 150, had become 'ein lieber Freund'. However, in a note on p. 65 of his book, Hosséus accuses Kerr of no less than plagiarism. Kerr's "Sketch of the Vegetation of Chiangmai" would in number of pages (!) as well as in contents be similar to Hosséus's "Beiträge zur Flora der Doi Sutäp" in Bot. Jahrb. 40 Beibl. (1908) 92—99. Further, Craib in his "List of Siamese Plants" in the same Kew Bull. 1911 would intentionally have ignored Hosséus's papers, which Hosséus explains as another gesture whereby the English systematically try to belittle German scientists and their work.

On comparing Kerr's paper with Hosséus's, I concluded that the latter's accusation is unfounded. As for Craib's supposed neglect: in an addendum at the end of his list, Kew Bull. 1911: 474, all publications by Hosséus have been cited.

trip had to be made, one of the sampan-like boats with a round roof was hired together with the crew, for the whole voyage. The boat could be stopped at any place desired, and this Kerr often did so that he could walk and collect more or less far inland on the banks, often over long distances.

He had books printed, about 20 by 20 cm, which contained for each collection two normal-sized labels and 4—5 ones of about 1 square inch for the duplicates; all could be torn from the book in which a counterfoil was left. These books⁸⁾ are preserved in the Kew library.

Every time that a consignment of 30—40 or more plants was dry, he sent them to Kew, and carefully noted the date of dispatch, the contents, and the date of acknowledgement. What Kerr did, he did well; this conclusion is apparent from all his work. All his material is fertile and well-annotated; although he was practically colour-blind, he regularly filled in the flower-colours after having invoked other people's help in looking for him! When a species somehow had not been collected satisfactorily, he completed the collection with newly found material from a nearby place (A-numbers; see also p. 447), and when in 1911 he learnt that a case with plants had never reached Kew, he set out to make up for the loss by new collections of the same kinds (B-numbers).

In Chiangmai the European community was small at the time. There was an important establishment of the American Presbyterian Mission with about a dozen missionaries, but among the British the Kerrs were the sole married couple for 5 years till 1909; there were, besides, some 8—10 bachelors, mainly engaged by the two firms which extracted teak from the forests, and two Divisional Forest Officers who kept an eye on their operations. One of these, apparently, was H. B. G. Garrett, who became one of Kerr's good friends.

Conditions were primitive. Before the railway from Bangkok opened up the country in 1921, Chiangmai could be reached either by a river journey of about four weeks, or by a mule track across the mountains. Such was the only connection even between the four main valleys which cut through northern Siam, parallel from North to South, of the rivers Me Ping, Me Wang, Me Yom, and Me Nan. There was no piped water supply, no indoor sanitation, neither gas nor electricity, and kerosene oil was the only alternative to candles or fire wood. Sometimes whites lost their life in an armed robbery.

Kerr's house was on the western bank of the Me Ping below the city, between the British Consulate and the Forest Lodge; it still existed in 1949. The water for the garden was pumped up automatically by a huge bamboo wheel which was kept in motion by the current of the majestic river. Some way downstream there was the famous leper settlement of the American Presbyterian Mission⁹⁾.

Kerr's task as a Medical Officer was to give medical and surgical aid to the Siamese government officials, police, survey, etc. He also made trips

⁸⁾ Also on this matter he was advised by Kew. This system of tag-labels which were to be detached from correspondingly numbered counterfoils was originally devised by Sir George Watt in India; see I. H. Burkill, *Kew Bull.* 1930: 329.

⁹⁾ For a long time, the director of the leper asylum was Dr. James W. McKean, also a friend of Kerr's. They made at least one trip together and in 1930 published with A. Marcan a paper on *Hydnocarpus* and *Taraktogenos*. *Garcinia mckeaniana* Craib was named in his honour.

in the vicinity, where he combined his inspection of the vaccination in the villages with his botanical pursuits.

He is remembered as an outstanding physician and surgeon, whose handicapped arm did not prevent him from performing successful operations. Although he seemed to have been most interested in research (he made an intensive study of intestinal parasites) he inspired his patients with great confidence. Not seldom the mission doctors at Chiengmai called him in consultation on serious cases. He took a personal interest in some of these patients for whom he really had very little responsibility, and one of them recollects that when as a child of eleven she was ill with typhoid, the doctor sent her, one at a time, a series of postcards having on them beautiful photographs of orchids, taken by himself. During all the time at Chiengmai, he had no private practice.

A trip to Sriracha in September 1911 brought him in contact with Mrs. D. J. Collins, who later became well-known in Siam as an amateur naturalist. It was apparently on Kerr's instigation that she started to collect plants (see also p. 477). At Sriracha Kerr also contacted members of the Borneo Company which was extracting timber from the forests, and he induced them to collect material and wood samples for the Kew Herbarium. Orchids continued to hold his special interest. In a letter from Sriracha of 27 September 1911 he expressed his plan not to send orchid specimens to Kew, but to keep them to work them out for himself on his next visit to England. "I want to make the collection as complete as possible from North Siam".

In June 1913 he was in England on leave and visited Mr. Rolfe at Kew, for whose help he expressed his thanks to Sir David Prain on his return to Chiengmai early in 1914. Soon afterwards his country found herself at war.

Kerr was intensely patriotic, and so he remained till the end of his days. We are told that so strong were his feelings, that he always stood up when 'God Save the King' was played on the radio. But he was so tune-deaf that he could not tell one melody from another. So, in World War II, when the National Anthem was likely to be played often, he used to inquire hastily whether there was any reason to get on his feet, in spite of his bad health. It is hard, objectively to judge the necessity of his move, but on 13 August 1915 he left Bangkok to serve his country in the Royal Army Medical Corps. He was for some time in active service at the front in France as a temporary Captain, but became unfit because of pectoral complaints. He went to the South of France, where he lived for a while with his family, and also made pollination experiments with *Ophrys*.

The interval at Bangkok. He made the journey back to the Far East alone, as a surgeon on a troop-ship via Hong Kong, and was back at Bangkok on 13 March 1919. A difficult period was now in store for him. In Chiengmai a Siamese doctor had been appointed in his place, and Kerr was kept at Bangkok with no regular duties. From time to time he was sent out in connection with an outbreak of cholera, plague, or fever in different parts of the country; it was on one of these trips that for the first time he visited the peninsula. The trips gave him some opportunity for collecting, which he resumed on 30 March, continuing unperturbedly at the very place in the field book where he had left off nearly four years ago.

Negotiations about his status were going slowly. On 21 June 1919 he

complained to the government about his being left without duties, "which is hard for a medical man", and wanted a new agreement if his services were still desired. Despite official interviews and letters an agreement on salary was not reached and on 20 August, two weeks after his wife and second daughter had joined him from Europe, he wrote a request for his resignation, to take effect after three months. Meanwhile, he was seriously considering Dr. Malcolm Smith's offer of a partnership in the latter's private practice, but, finally, nothing was settled; instead, the Siamese authorities allowed him to do some private practice besides his official duties, and on this condition he accepted, in a letter on 16 October, to stay on at the originally offered salary.

Plans for his appointment as a Government Botanist were ripening very slowly; the first reference in his diary is on 25 April 1919, the second on 6 February 1920, when Prince Bidja asked him to write a report on the organisation of a Botanical Department. This report was submitted a week later, but on 22 April 1920 he learned that there was no immediate prospect of a botanical appointment. His medical duties remained irregular. He often went out collecting, alone or with his close friend A. Marcan, and spent several weeks with his family who lived temporarily at Sriracha. On 10 June, in the same period when Kerr's father died, Prince Jainad¹⁰), his superior, ordered him to go to Chiangmai, but thanks to his influential friend and patient, San Chao Phya Suvasi he was allowed to stay at Bangkok for some time until a definite decision about his future would have been taken. This did, in fact, happen: on 1 September 1920 his appointment as Government Botanist materialised. On that date the Botanical Section was established as a part of the Ministry of Commerce. It was the first botanical institute in Siam, with Kerr as Director.

The Botanical Section. The personnel had still to be found. Kerr tried to engage Winit, but did not succeed as Winit's employers would not let him go, but soon Nai Chit was employed, and at the end of October also Nai Noe. Kerr, who had now officially given up the medical profession which he had practised for almost twenty years, found, at 43, himself faced with the task of carrying out a primary botanical-economic survey of a country twice as large as the United Kingdom and four times as large as Java¹¹), largely terra incognita from botanical and other points of view¹²).

To perform this task, every year a tour was projected of about 2—3 months, to visit each part of the country in turn, collecting plants and observing everything of economic importance. As conditions in many parts of Siam were such that transport was paralysed during the wet monsoon, these tours were generally undertaken during the dry season, which in Siam is at its height in January-February.

On 15 October it was agreed between Prince Bidja and Kerr that the

¹⁰) 1885—1952. See W. A. M. Doll, *J. Siam Soc.* 40 (1952) 227—229.

¹¹) Area of Java 48,842 sq.mi., of U.K. 94,494 sq.mi., of Thailand 198,270 sq.mi. (*The Times Atlas*).

¹²) From Kerr's paper 'Early Botanists in Thailand' we learn that up till the time that he came to Siam altogether c. 4250 collections had been made in that country, mainly by Schomburgk, Teijsmann, Thorel, Pierre, Harmand, Murton, Curtis, Keith, Smiles, Zimmermann, Gwynne-Vaughan, and J. Schmidt. This makes a density index of approximately 1 collection per 100 sq.km.

latter would go to his old residence in Chiangmai and from there conduct his explorations through the northern provinces. On 4 November Kerr with his family and two assistants left Bangkok by train for Paknampo; from there on the 7th the boats left for their long journey up the Me Ping, Kerr walking and collecting along the banks as usual. Chiangmai was reached on 4 December. After a short trip with his assistants on Doi Sutep, his old collecting ground, Kerr started on 27 January 1921 with Nai Noe, Nai Chit, a boy, a cook, 4 carriers and 10 pack mules for his first of two tours, on which he was away for nearly half a year. Meanwhile his brother F. H. W. (Woodhams) Kerr, the clergyman, came to visit him, and before long the brother himself had undertaken a trip to Doi Sutep to botanise. On 19 September Kerr went, by the new railway, to Bangkok for conferences. When he returned he found his wife ill; she died two nights later, on 13 October. On the 28th of that month the brothers with the children left Chiangmai for England. There Kerr's daughters were taken care of by their aunt, Mrs. Palliser, in Hayes, Kent. Kerr, who had to proceed with his life-work, returned alone to Siam. When on 11 March 1922 he arrived again at Chiangmai, his assistants were at the station to meet him. Eleven days later he started with 40 carriers and 7 others for another long tour, through Central Siam.

Towards the end of 1922, he left Chiangmai for good, as the Botanical Section moved to Bangkok, arriving there on 16 December, and taking up its quarters in the building previously occupied by the Department of Commerce and Statistics. Kerr found himself a house in Wireless Road.

Soon after he had settled in Bangkok he made a trip to Kaw Chang, and this marked the beginning of Kerr's profound love of little islands. He visited many in the Gulf of Siam, some of them repeatedly.

He took an important part in the activities of the Siam Society, had been elected a member of the Council 18 March 1920, and was elected as leader of the Natural History Section in 1927¹³). He was also elected a Fellow of the Linnean Society of London on 13 December 1923, and was admitted as such while on leave in England, on 11 April 1925. His diary testifies to the frequent intercourse he had with his friends, especially Mrs. D. J. Collins, A. Marcan, E. J. Godfrey, and F. H. Giles¹⁴), all active members of the Siam Society. But he also had to spend much time in attending meetings at the ministry.

Methodically as ever he continued his exploration work. He travelled

¹³) The Natural History Society of Siam held its first meeting on 6 March 1914. Among the first members were Dr. A. Malcolm Smith, who was the first editor of the Journal, and Mrs. D. J. Collins. Kerr apparently did not become a member before 1919. In 1925 the Natural History Society of Siam was amalgamated with the Siam Society which had been founded in 1904; it survives as a section of the Siam Society.

Its periodical went through several name changes. It was commenced as the 'Journal of the Natural History Society of Siam' in February 1914. In vol. 7 (1927) it was continued as the 'Journal of the Siam Society, Natural History Supplement'. Volume 13 became 'Natural History Bulletin of the Thailand Research Society', and volume 14, part 2 (1947) the 'Natural History Bulletin of the Siam Society', which name it still retains.

¹⁴) Director General of Revenues. See E. Seidenfaden, *J. Siam Soc.* 40 (1952) 221—226.

by all sorts of conveyances, generally taking the train as far as he could, then proceeding by motorcar as far as the road permitted; otherwise he went by bullock carts or occasionally by elephant. When a river provided an opportunity he took boats, or sometimes a bamboo raft. Notwithstanding all these means of transportation, he covered huge distances on foot; since he reported that on one tour of three months through eastern Siam he walked 1800 km, we may infer that he did many thousands altogether. He seemed always on the move. If he had reached a village after several days of walking and collecting on the way, and learnt that there was a hill or mountain in the neighbourhood, he immediately started to climb it, and having returned, without a rest proceeded straight on to his next destination. If he could not get his material out of the high trees by other means, he shot it down, as a man at Prachuap in 1952 still remembered. He used to travel with a considerable equipment, even taking a preparation microscope with him, and camped in tents or in villages with the risk of being robbed, which occurred several times. In his journals he wrote everything he observed: the sort of vegetation he traversed, of course, but also the number of merchants who passed him and the quantity of their goods, the crops cultivated, the number of pigs in a village, and details about mines and local industry. This was his life and love. On 24 November 1929 he wrote to H. H. Dixon, his close friend for more than thirty years, "Dear Professor. This is to wish you all a very jolly Christmas and a happy New Year. My Christmas will, I hope, be spent in the jungle, and if I am lucky, I will be well up in the mountains between Siam & Cambodia. There are some there which are up to 4000 ft, which I have not yet visited."

The official reports of all these tours have been published in *The Record*, a quarterly issued by the Ministry of Commerce at Bangkok, mainly giving such news as market reports and export balances. Kerr was acting editor of the periodical for a few months in 1923. These reports give a sketchy narrative of his tours, often accompanied by a map, but mainly they communicate his observations on the way. They contain much information which is unique in literature, and considering the scarcity of these Reports, it could be well worth reprinting their essential contents. Kerr made, in Siam proper, 17 of such tours. In the intervals at Bangkok he spent much time on the Economic Museum, and made many smaller excursions in the vicinity of Bangkok.

His interest in ethnobotany and medicine resulted in an important paper published in 1930 on the genera *Hydnocarpus* and *Taraktogenos*, because of the krabao oil, yielded by *Hydnocarpus anthelminthica*, which was, for a long time, the most successful medicine against leprosy, and used on a large scale in the Chiengmai Leper Asylum, to which we referred above.

The results. Kerr's method of surveying deserves a few separate remarks. The predominant feature of his surveying is that it is always essentially one-dimensional. He follows a route and takes down meticulously what he sees, both to the left and to the right. This linear method is, of course, followed by every field-worker; there is no other, strictly spoken. But where most undertake an attempt at a two-dimensional reconstruction of the field they have explored, such a synthesis is remarkably absent in Kerr's work. His earliest, self-prepared maps of 1906 show nothing outside the route explored

by himself, and the same feature characterises the maps that he was to add to his Tour Reports, 16 and more years later. On these maps we see that all along the explored tracks letters have been filled in, to denote the vegetation types he came through (*fig. 5*).

It is in strict accordance with this way of thinking that, although no doubt well qualified for it, he never attempted, as far as we know, to make a subdivision of Siam into plant-geographical provinces or to compile a comprehensive account of the vegetation types of Siam, as did, for instance, L. Dudley Stamp (a geographer!), whose booklet 'The Vegetation of Burma' (1925) 58 pp., inspired Dr. C. G. G. J. van Steenis to write the 'Maleische Vegetatieschetsen' ten years later. Kerr, however, in 'General View of Siam 1926' visualises the diversity in vegetation types by projecting an imaginary voyage by train over the entire length of the country from south to north.

It is this gift for a one-dimensional way of working combined with his adherence to facts which he never grew tired of noting down, that marked Kerr as a typical pioneer, and partly accounts for his success as an explorer, especially in unknown Siam. A different attitude would, for instance, have induced him to concentrate his efforts on one corner of the country, or to have specialised in one or more botanical subjects. But being what he was, he was the man to cover the whole country, always gathering facts, pure facts without an interpretation. Such a method is needed for a primary survey.

It is even doubtful whether in a botanically well-known country Kerr would ever have developed into a botanist. We know that, although he later credited Dixon for making him keen on botany, almost ten years elapsed after his studies before he began to dry plants. Certainly he was not an addict to botanising; there is, for instance, no evidence that after his return to England he took any scientific interest in the local flora. Kerr was a man for untrodden paths. Rather than love for plants, however profound, a feeling that his activities must have sense and purpose, was the guide to all his doings. To him, the botany of Siam was very much accessible, just because it was hitherto unstudied and hence practically a vacuum. Had there been a mass of literature to master, leaving him only certain niches to explore, it is probable that he would have taken to a more virgin field of study.

Meanwhile, Craib worked up his material. In 1915 Craib had left Kew to become a lecturer at Edinburgh, and in 1920 he had been appointed Regius Professor of Botany at Aberdeen. With him he had taken the work on the Flora of Siam, which resulted in the *Florae Siamensis Enumeratio*. The first part appeared in 1925 at Bangkok after Kerr himself had seen it through the press. Besides his dried material, Kerr sent many living plants to Europe: Orchids to Dublin and Kew, various plants to Aberdeen, where several species were described by Craib on living specimens grown from seed originally sent by Kerr. Kerr also began to publish more himself. Being the only botanist in the country, he reviewed many publications relating to Siam. He widened his own interest by paying attention to butterflies; E. J. Godfrey published the results of his collections. He also was interested in the archeology and ethnography of the country. He was fluent in the language and knew several dialects. One of his pursuits was the study of vernacular plant names, and for the first instalment of the *Enumeratio* he wrote an introduction to the subject. His knowledge of Siamese resulted partly from his linguistic gifts

(he was well up in French and German, too), partly from his genuine liking for the people of Thailand, a liking that did not end with his return to Britain. During his leave as well as after his retirement he kept in touch with his Siamese friends in England and exchanged visits with them.

Kerr instilled his enthusiasm into many others. Not only had he always something of interest, such as a fetid orchid, carefully placed under a glass bell, to demonstrate at the sessions of the Siam Society, but he induced others to take up plant collecting too. We have already mentioned Mrs. Collins, who was one of the first. But his great friends H. B. G. Garrett, and A. Marcan, his own brother F. H. W. Kerr, Mrs. Eryl Smith, and several Siamese like Winit and Nai Put, also made extensive collections, probably all inspired by him. As little is known about these "associates" of Kerr's, we have tried to obtain more information about them for inclusion in a separate chapter on p. 476.

The Botanical Section flourished. In 1925 an Assistant Director was appointed in the person of Mom Chao Lakshnakara. In 1926 the staff was extended with Nai Rabil Bunnag, and in the same year Nai Put commenced his collecting. An Economic Museum was opened on 17 December 1926, where all sorts of botanical products were exhibited. The photograph in 'Siam, Nature and Industry' clearly shows these results of Kerr's activity. In April 1931 Kerr received a substantial promotion: the Agricultural Department was transferred from the Ministry of Lands and Agriculture to the Ministry of Commerce and Communications, under the name Department of Agricultural Research, of which Kerr became Director General.

That Kerr was a well-known personality in Siam we may gather from a cartoon in a Siamese newspaper, which even bears a faint resemblance to him (*fig. 4*), and from an article in the Bangkok Times on the occasion of his retirement. This took place in March 1932, after Kerr had completed 25 years of Government Service. He had also completed the survey of Siam. The Bangkok Times speaks of a quiet and retiring gentleman, one who put service to others above everything else. Many people, including Mrs. Collins, Major Seidenfaden (uncle of the present Danish Ambassador at Moscow, Mr. Gunnar Seidenfaden), and A. Marcan, were present to see him off. They garlanded him before he entered the train to make a trip to Laos, for the 55-year old explorer was not yet quite satisfied, and after this tour he undertook a traverse through the Kra Isthmus from Prachuap to Mergui. Via Rangoon he went to Penang; it was there that on 13 June he bade farewell to Nai Noe, his valued assistant from the first tour to the last. A visit to Pulau Langkawi marks the end of Kerr's wanderings in South East Asia; on 23 June he sailed from Penang for England.

The later years. In London, where he arrived on 23 July, he welcomed Mrs. Collins and H. B. G. Garrett when they came on leave, and subsequently saw them off back to Siam, on 3 and 25 November, respectively. The English climate did him no good, and he made a trip to South Africa and Madeira from 13 January to 3 April 1933 with his eldest daughter. He visited the Botanic Gardens in Durban, but there is no account that he did any botanizing.

In the above-mentioned article in the Bangkok Times it is suggested that, on his return to England, Kerr perhaps might write a book about Siam, and no doubt with his knowledge the standard-work which we are still wanting

at the present day could have been written¹⁵). But it is more likely that he had other plans. On 17 April 1929 he had written to his old friend professor Dixon: "In 1931 I will probably retire for good. I may then settle down near Kew and try and help Craib at working out our Siamese plants. There is still some years work to be done before the present lot are chewed up, even if nothing is collected meanwhile".

He had already become a regular visitor at Kew, when Professor and Mrs. Craib came down from Aberdeen on 28 July 1933. They had long talks, but on 20 August Craib fell ill. Kerr came almost daily to see him; he died at Kew on 1 September of a cerebral tumour. In him, Kerr lost a lifelong friend and co-operator. Thanks to their joint efforts the *Flora Siamensis Enumeratio* had been begun, its second volume in process of publication. The solution was obvious: Kerr went for a week to Aberdeen to arrange things and took over the editorship.

He had settled with his three daughters in Hayes, Kent, in Mrs. Palliser's house, where a hut was built in the garden for his herbarium and for his impressive library. The latter contained all the recent standard works dealing with the flora of Southeastern Asia and several periodicals and older books, besides, much literature on all subjects connected with Siam; also, some literature on birds. (At Hayes, the birds came to eat from his hand.) He went to Kew a few days a week and spent the others in his own herbarium hut, dissecting flowers and filling little books with notes in the same methodical way that he had maintained throughout his life. He never seemed to work hard, and he was never idle; he just went on and on. He was never angry at being interrupted, but never wasted time over social life. At the Kew Herbarium he is remembered as a very good botanist and a very kind gentleman, but reserved and not much inclined to talk. In 1936 and 1938 appeared parts 3 and 4 of vol. II, edited by him but filled with contributions by other botanists, mainly H. R. Fletcher. Meanwhile Kerr wrote up the *Oleaceae*, *Salvadoraceae*, *Apocynaceae*, which appeared in 1939. Hereafter he prepared the *Asclepiadaceae*, *Loganiaceae*, *Gentianaceae*, *Boraginaceae*, *Convolvulaceae*, *Solanaceae*, and *Scrophulariaceae*. He did not live to see these published.

His diary of November 1919 mentioned his being ill with dyspnoea, and from time to time he suffered from asthma, but this cannot have been serious enough to interfere with his field work; more trouble, probably, was caused

¹⁵) The best book we know is that by the German geographer W. Credner "Siam, das Land der Thai" (Stuttgart 1935) xvi + 422 pp., 70 phot., 27 figs., 12 maps. It gives a bibliography of 332 numbers and a cartography. The pages 105—126 are devoted to cursory discussions of the main vegetation types; a small vegetation map is found opposite p. 112. The book, which deals with Geology, Climate, Vegetation and Fauna, Ethnology, Agriculture and Economy, Administration and Civilisation, is a mine of information about all aspects of contemporary Siam.

Another valuable book is "Siam, Nature and Industry" (Bangkok 1930) 324 pp., maps and phot. The book was edited by Kerr himself, who also wrote the chapters on Geology and Botany, and also wrote a draft of the chapter on Ethnology. This book is the second edition of "General View of Siam 1926", both publications of the Siamese Government.

The most recent book, "Thailand, Aspects of Landscape and Life" (New York 1962) xv + 321 pp., phot., 26 figs, was written by R. L. Pendleton, a soil scientist and geographer, who also saw some of Kerr's last MSS. through the press in 1951. It contains much postwar information.

to him by malaria, which in Bangkok made him stay many a day at home. Back in Europe the asthma grew worse, and in his later years became so serious that he sometimes had to stop walking to take breath. He kept working till the last. In 1940 and 1941 he made phenological observations for an investigation program by the Royal Meteorological Society. When the war came, the Air Ministry showed interest in his map collection of Siam, and Kerr started to copy his maps for them, but a week before his death he had become too weak to continue. After a brief illness he died on 21 January 1942 at Hayes, Kent, at the age of 64. His remains were cremated and his name was added to the tombstone of the family grave at Cerne Abbas, Dorset.

The man. Kerr was rather tall and slim, had dark, later grey hair, and clear, grey eyes. From portraits, especially the one that was printed with his paper 'Early Botanists in Thailand', the impression is gathered of a profoundly calm and friendly person, and this is indeed what he was. He was fond of children and could make any child stop crying. The only time he is ever known to have lost his temper was when he had to telephone in a public box and failed to operate the machinery.

The main features of his character were constancy and generosity. He would always put forward other people's merits; this, for instance, is testified by this passage in a letter on 19 August 1949 from H. R. Fletcher to F. H. W. Kerr: "... I knew there must be a MS. because I know I handed over to Dr. Kerr a rough MS. of my own of the Gentianaceae and Boraginaceae. When I did this I never for a moment imagined, that he would publish these families under our joint names. I was disappointed to have to give up working on Siamese plants and simply gave him these MSS. of two families to use as he thought fit. I naturally thought he would go over the work and publish it with the Asclepiadaceae under his own name. The fault was mine: I had overlooked the fact that your brother was a very great gentleman and to see in your letter this morning that my name was associated with his in the authorship of these families has moved me very much".

Summarising his life and work, which he amalgamated to one whole, we may say that everything he undertook he built up to something good and thorough, in his professional as well as in his private life. Through an extensive correspondence he always kept in touch with his many friends and never missed an occasion to come to their assistance. One of the things that gave him, in his last years, the greatest pleasure and satisfaction, was the fact that on his instigation a young Norwegian, in whom he had detected that spark of adventure which will never die in privileged men, set out to travel and to seek fortune in the wide world, as he had done forty years before.

The genera *Afgekia* Craib (Kew Bull. 1927: 376; Leguminosae-Galegeae), *Kerrdora* Gagn.¹⁶ (Not. Syst. ed. Humb. 14: 31. 1950; Thymelaeaceae), and *Kerriochloa* Hubb. (in Hook. Ic. Pl. 35: t. 3494. 1951; Gramineae-Andropogoneae) were named after him, and more than 30 plant species bear the epithet *kerrii* in his honour. Also *Procamallanus kerrii* Pearse, a nematod fish parasite, bears his name (J. Siam Soc., Nat. Hist. Suppl. 9: 185. 1933). *Impatiens kerriae* Craib was named after his wife.

¹⁶) Unfortunately, *Kerrdora* has appeared an invalid genus. Léandri, Abstr. Papers 9th Pac. Sci. Congr. Thailand (1957) 65, stated that it had been based on a *Cryptocarya* (Lauraceae) with some abnormal flowers.

A. F. G. KERR'S BIBLIOGRAPHY

Many of Kerr's papers are small and sometimes bear only an abbreviated author's name, like A. Kerr, or A. F. G. K., or A. K. The items have been arranged according to subject, and chronologically. We have done our best to give the complete list.

A. Tour Reports. Nearly all of these were published in 'The Record', a quarterly published by the Ministry of Commerce at Bangkok, from 1921 onwards. These reports appeared anonymously; the 18 ones listed below were written by Kerr in his capacity of Director of the Botanical Section, or later of Director General. Three reports of the series deal with journeys made by Kerr's assistant, Mom Chao Lakshnakara, who is also to be regarded as their author; see p. 480. A complete series of all reports is in the Kew Library, and in the library of the Rijksherbarium, Leiden. The titles have been copied verbatim. The numbering is for the sake of convenience.

1. Report of the Botanical Section. September 1st. 1920 to December 31st. 1922. (Tours in Maharat and Payap, northern Siam — M. J.) — The Record no. 8 (IV 1923) 1—9.
2. Report of the Botanical Section of the Ministry of Commerce. September 1st. 1920—December 31st. 1922. (Tours in Pitsanulok, Nakawn Sawan, and Payap, northern Siam — M. J.) — The Record no. 9 (VII 1923) 1—10 + map.
3. Report on a Tour undertaken by the Botanical Section in the Circle of Pattani (July—September 1923). — The Record no. 12 (IV 1924) 18—24 + map.
4. Report on a Tour of the Botanical Section through the Eastern Circles of Siam (December 1923—April 1924). — The Record no. 15 (I 1925) 157—172 + map, and no. 16 (IV 1925) 217—233.
5. Report on a Tour of the Botanical Section in the Island of Kaw Chang (Chandhaburi Circle), Lat. 12 N., Long. 102.25 E. (from September 24th to October 5th 1924). — The Record no. 19 (I 1926) 1—5.
6. Report on a Tour of the Botanical Section in the Circles of Chantaburi and Prachinburi (from November 22nd 1924 to January 19th 1925). — The Record no. 21 (VII 1926; reprint dated V 1926) 1—7, and no. 22 (X 1926) 387—392.
7. Report on a Tour of the Botanical Section in the Circle of Rajaburi (December 28th 1925—March 19th 1926). — The Record no. 24 (IV 1927; reprint dated V 1927) 1—9, and no. 25 (VII 1927) 27—34 + map.
8. Report on a Tour in the Province of Prachuap (June 29th—July 26th, 1926). — The Record no. 28 (IV 1928) 270—274 + map + 4 phot.
9. Report on a Tour in the Provinces of Chumpawn, Langsuan and Surat (December 25th 1926—April 21st 1927). — The Record no. 29 (IX 1928) 1—13 + 6 phot., and no. 30 (X 1928) 1—13 + map.
10. Report on a Second Tour in the Province of Surat, Southern Siam (July 16th—August 16th 1927). — The Record no. 32 (IV 1929) 1—6 + 2 phot.
11. Report on Three Tours in the Provinces of Nakawn Sritamarat, Songkla,

- Satul and Patalung. — Tour I. December 21st 1927 to January 31st 1928. — The Record no. 33 (VII 1929) 1—12 + map + 6 phot.
12. Report on Three Tours in the Provinces of Nakawn Sritammarat, Songkla, Satul and Patalung. — Tour II. March 7th to May 16th 1928. — The Record no. 34 (X 1929) 1—12 + 2 phot., and no. 35 (I 1930) 1—4 + 2 phot.
 13. Report on Three Tours in the Provinces of Nakawn Sritamarat, Songkla, Satul and Patalung. — Tour III. July 11th to July 31st 1928. — The Record no. 35 (I 1930) 4—8 + 2 phot.; followed by Summary of the Three Tours, with General Notes, l.c. 8—12 + 2 phot.
 14. Report on a Tour in the Provinces of Ranawng, Takuapa, Pang-nga and Puket. December 19th 1928 to March 16th 1929. — The Record no. 38 (X 1930) 1—13 + map + 6 phot., and no. 39 (I 1931) 1—13 + 8 phot.
 15. Report on a Tour in the Provinces of Krat and Chantabun (December 16th 1929 to January 13th 1930). — The Record no. 42 (X 1931) 1—8 + map + 4 phot.
 16. Report on a Tour in the Provinces of Surat, Pang-nga, Krabi, Trang and Patalung (February 16th to May 3rd 1930). — The Record no. 43 (I 1932) 211—232 + map + 8 phot.
 17. Report on a Tour in the Provinces of Korat, Chaiyapum, Kawn Ken, Loi and Petchabun. January 19th to March 10th 1931. — The Record vol. XII no. 1 (VII 1932) 1—12 + 4 phot., and vol. XII no. 2 (third quarter B. E. 2475; i. e. 1932. — M. J.) 1—12 + 2 phot.
 18. Report on a Tour in North-Eastern Siam and French Laos with An Account of a trip from Prachuap to Mergui March B. E. 2474—June B. E. 2475. — The Record vol. XII no. 4 (first quarter B. E. 2476; i. e. 1933. — M. J.) 1—7, and vol. XIII no. 1 (second quarter B. E. 2476; i. e. 1933. — M. J.) 1—8.
 19. A trip to Pu Bia in French Laos. — J. Siam Soc., Nat. Hist. Suppl. 9 (1933) 193—223 + map + 8 phot.
 20. Notes on a trip from Prachuap (Kaw Lak) to Mergui. — J. Siam Soc. 26 (1933) 203—214 + map.

B. Taxonomic contributions.

(With F. D. Ryan as senior author) Dipterocarpaceae of northern Siam. — J. Siam Soc. 8,1 (1911) 1—24.

In the series 'Contributions to the flora of Siam' (consisting of descriptions of new taxa and proposals of new combinations), 1 new genus and species in Kew Bull. 1918: 364, and 2 new genera, 89 new species and varieties, and 5 new combinations in various families, largely precursory to the *Flora Siamensis Enumeratio*, in Kew Bulletin 1933—1941.

A collection of orchids from French Laos. — J. Siam Soc., Nat. Hist. Suppl. 9 (1933) 225—243 + 7 figs.

A new orchid from Cambodia. — J. Siam Soc., Nat. Hist. Suppl. 10 (1935) 56—60.

Psilobium siamense Kerr. — Hook. Ic. Pl. Pl. 34,2 (1937) t. 3332.

Oleaceae. — Fl. Siam. Enum. 2 (1939) 395—421.

Salvadoraceae. — Fl. Siam. Enum. 2 (1939) 422.

Apocynaceae. — Fl. Siam. Enum. 2 (1939) 422—476.

- Hoya mitrata* Kerr. — Hook. Ic. Pl. 35 (1940) t. 3406.
Hoya flagellata Kerr. — Hook. Ic. Pl. 35 (1940) t. 3407.
Remirema bracteata Kerr. — Hook. Ic. Pl. 35 (1943) t. 3435.
 Asclepiadaceae. — Fl. Siam. Enum. 3,1 (1951) 1—51.
 Loganiaceae (excl. *Strychnos*). — Fl. Siam. Enum. 3,1 (1951) 51—64.
 Gentianaceae (with H. R. Fletcher). — Fl. Siam. Enum. 3,1 (1951) 64—76.
 Hydrophyllaceae. — Fl. Siam. Enum. 3,1 (1951) 76.
 Boraginaceae (with H. R. Fletcher). — Fl. Siam. Enum. 3,1 (1951) 77—88.
 Convolvulaceae. — Fl. Siam. Enum. 3,1 (1951) 89—100, and 3,2 (1954) 1—35¹⁷⁾.
 Solanaceae. — Fl. Siam. Enum. 3,2 (1954) 35—52.
 Scrophulariaceae. — Fl. Siam. Enum. 3,2 (1954) 52—81.

C. Contributions in "General View of Siam 1926" and in "Siam, Nature and Industry". Both of these books were issued by the Government of Siam. "General View of Siam 1926" consists of 14 pamphlets separately paged. Under the title "Siam, Nature and Industry" (1930) 324 pp., maps, phot., a revised and continuously paged edition was brought out under the editorship of A. F. G. Kerr (although he was not mentioned as such), on the occasion of the Eighth Congress of Far Eastern Tropical Medicine held at Bangkok in December 1930. The contributions were all written by experts; in the 1926 edition they appeared anonymously, but a list of the authors who contributed to both editions is on p. 309 of the 1930 book. The latter contains 22 chapters, partly new, partly revised of the 1926 edition. Having been written in a period of great activities in the field of science in Siam, these books, especially "Siam, Nature and Industry", make excellent informative literature on the present day country. Besides Kerr's contributions listed below also the chapter on Forestry by D. R. S. Bourke-Borrowes is interesting for the botanist.

Geology. — In the 1926 edition p. 11—19, 2 phot., in the pamphlet on Physical Features; in the 1930 edition p. 11—20, 2 phot.

Flora and Vegetation. — In the 1926 edition p. 27—38, 3 phot., in the pamphlet on Physical Features; in the 1930 edition p. 27—40, 5 phot.

Ethnology. — In the 1926 edition p. 73—91, 3 phot., in the pamphlet on Physical Features; for the 1930 edition rewritten by E. Seidenfaden.

Minor Industries. — Not in the 1926 edition; in the 1930 edition p. 240—250, 6 phot.

Botanical Section and Economic Museum. — Not in the 1926 edition; in the 1930 edition p. 306—307, 1 phot.

D. Miscellaneous botanical papers.

Notes on the pollination of certain species of *Dendrobium*. — Sci. Proc. Dublin Soc. 12 n.s. no. 5 (1909) 47—53 + pl. 5—6.

Sketch of the vegetation of Chiangmai. — Kew Bull. 1911: 1—6.

Notes on *Dischidia rafflesiana* Wall. and *Dischidia nummularia* R. Br. — Sci. Proc. Dublin Soc. 13 n.s. no. 21 (1912) 293—309 + pl. 25—31.

Recent advances in our knowledge of the flora of Siam. — J. Siam Soc. 10,1 (1913) 13—15.

¹⁷⁾ Forgotten references supplied in Nat. Hist. Bull. Siam Soc. 20 (1961) 81—82.

A hybrid *Dipterocarpus*. — *J. Siam Soc.* 11,1 (1914) 9—12 + pl. (*D. oblongifolius* x *costatus* — M. J.).

Note to a paper by Johs. Schmidt, Vegetation of Koh Lom, a small rocky island West of Koh Chang. — *J. Siam Soc.* 18 (1924) 242.

(With H. B. G. Garrett as senior author) Doi Angka. The highest mountain in Siam. — *J. Siam Soc.* 19 (1925) 1—19 + map + pl. 1—5.

A little known orchid (*Dendrobium friedericksianum*). — *J. Siam Soc., Nat. Hist. Suppl.* 7 (1927) 65—66.

Kaw Tao, its physical features and vegetation. — *J. Siam Soc., Nat. Hist. Suppl.* 7 (1928) 137—150 + 2 maps + plates 8—12.

Fruit and seeds in the drift on Kaw Tao. — *J. Siam Soc., Nat. Hist. Suppl.* 8 (1930) 103—117.

The Genera *Hydnocarpus* and *Taraktogenos* in Siam. — *Techn. and Sci. Suppl. to The Record* no. 7 (1930) 1—16 + 2 distr. maps + 5 pl.

Notes on introduced plants in Siam. — *J. Siam Soc., Nat. Hist. Suppl.* 8 (1931) 197—212. (A list of 58 spp. with brief comments — M. J.)

Dispersal of fruit by wind. — *J. Siam Soc., Nat. Hist. Suppl.* 8 (1931) 216.

Poisoning by Pak Wan (*Meliantha suavis*) in Siam. — *Trans. Roy. Soc. Trop. Med. Hyg.* 25 (1931) 141—143 + fig. (A borer in the twigs probably renders them poisonous — M. J.).

Additional notes on introduced plants. — *J. Siam Soc., Nat. Hist. Suppl.* 8 (1932) 334—335.

A reputed rejuvenator. — *J. Siam Soc., Nat. Hist. Suppl.* 8 (1932) 336—338 + fig. (*Butea superba* — M. J.).

The genus *Parnassia* in Siam. — *J. Siam Soc., Nat. Hist. Suppl.* 9 (1934) 327—328 + fig.

Cleistogamous flowers in *Ruellia tuberosa*. — *J. Siam Soc., Nat. Hist. Suppl.* 10 (1935) 66—67.

An interesting aromatic herb (*Artemisia pallens*). — *J. Siam Soc., Nat. Hist. Suppl.* 10 (1935) 61—62.

Composition of the dry evergreen forest on Kaw Tao. — *J. Siam Soc., Nat. Hist. Suppl.* 11 (1937) 35—38.

Early botanists in Thailand. — *J. Thail. Res. Soc.* 12 (1939) 1—27, with the author's portrait.

Notes on the scented woods of Thailand. — *Nat. Hist. Bull. Thail. Res. Soc.* 13 (1942) 35—42. (Eleven spp. with brief comments — M. J.)

E. Miscellaneous non-botanical papers.

Meteorological observations made in Chiangmai, 1910—1914. — *J. Siam Soc.* 17 (1923) 21—34.

Ethnologic notes: The Lawa of the Baw Luang plateau; the Chaobon to the South of Korat; the Ka Tawng Luang; Note on some rock-paintings in eastern Siam. — *J. Siam Soc.* 18 (1924) 135—146.

Local plant names. — in W. G. Craib, *Florae Siamensis Enumeratio* 1 (1925) 9—14.

A young Malayan tapir. — *J. Siam Soc., Nat. Hist. Suppl.* 7 (1927) 129.

Obituary on Carl Roebelen. — *J. Siam Soc., Nat. Hist. Suppl.* 7 (1927) 132—134.

Two 'Lawa' vocabularies. The Lawa of the Baw Luang plateau. — J. Siam Soc. 21 (1927) 53—63.

A strange animal reported from Roi Et. — J. Siam Soc., Nat. Hist. Suppl. 7 (1927) 129.

The late Mr. Roebelen as a zoological collector. — J. Siam Soc., Nat. Hist. Suppl. 7 (1928) 94.

Obituary notes on M. R. Oldfield Thomas and on H. C. Robinson. — J. Siam Soc., Nat. Hist. Suppl. 8 (1929) 57.

A virtue ascribed to an elephant. — J. Siam Soc. 23 (1929) 123—124.

Habitat of Schomburgk's Deer. — J. Siam Soc., Nat. Hist. Suppl. 8 (1931) 216—217.

An edible larva (*Zeuzera coffeae*). — J. Siam Soc., Nat. Hist. Suppl. 8 (1931) 217—218.

Butterflies visiting a tent. — J. Siam Soc., Nat. Hist. Suppl. 8 (1932) 338—339.

Note on a flight of butterflies. — J. Siam Soc., Nat. Hist. Suppl. 8 (1932) 339—341.

Obituary on W. G. Craib. — Kew Bull. 1933: 409—412.

Obituary on W. G. Craib. — J. Siam Soc., Nat. Hist. Suppl. 9 (1933) 261—262.

The blow-pipe in North Siam. — J. Siam Soc. 28 (1935) 187.

F. Reviews of books and papers.

The author and title of the reviewed work are mentioned first, then the reference to Kerr's review.

Phya Vanpruk Picharn, List of common trees, shrubs, etc. in Siam. — J. Siam Soc. 17 (1923) 214.

Ridley, Flora of the Malay peninsula. — J. Siam Soc. 17 (1923) 215.

Prain & Burkill, The genus *Dioscorea* in Siam. — J. Siam Soc., Nat. Hist. Suppl. 7 (1927) 130—131.

Bourke-Borrowes, Some miscellaneous notes on big trees in Siam. — J. Siam Soc., Nat. Hist. Suppl. 7 (1927) 131—132.

Craib and others, Contributions to the flora of Siam. — J. Siam Soc., Nat. Hist. Suppl. 7 (1928) 197—198.

Bulletin of the Raffles Museum 1 & 2. — J. Siam Soc., Nat. Hist. Suppl. 8 (1929) 56.

Cockerell, Flora of Doi Sutep. — J. Siam Soc., Nat. Hist. Suppl. 8 (1929) 124.

Cockerell, Descriptions and records of bees cxix. — J. Siam Soc., Nat. Hist. Suppl. 8 (1929) 124.

Dover, Papers on Malayan aquatic biology ix. — J. Siam Soc., Nat. Hist. Suppl. 8 (1929) 125.

Craib, Contributions to the Flora of Siam. Additamenta xxvii and xxviii. — J. Siam Soc., Nat. Hist. Suppl. 8 (1930) 127—128.

The Hongkong Naturalist. — J. Siam Soc., Nat. Hist. Suppl. 8 (1931) 220—221.

Craib, *Florae Siamensis Enumeratio*. — J. Siam Soc., Nat. Hist. Suppl. 8 (1931) 222.

Craib, Contributions to the flora of Siam. Additamenta xxix, xxx, and xxxi. — J. Siam Soc., Nat. Hist. Suppl. 8 (1931) 222—223.

Sallet, *Les nids d'hirondelles: les salanganes et leurs nids comestibles*. — J. Siam Soc., Nat. Hist. Suppl. 8 (1931) 223—224.

- H. M. Smith, Descriptions of new genera and species of Siamese fishes. — *J. Siam Soc., Nat. Hist. Suppl.* 8 (1931) 224—226.
- LeTomlin & Peile, *Eorrastris*, a new genus of bulimoid snails. — *J. Siam Soc., Nat. Hist. Suppl.* 8 (1931) 227—228.
- Fisher, New Malayan Buprestidae. — *J. Siam Soc., Nat. Hist. Suppl.* 8 (1931) 228.
- Pendlebury, Malaysian Cercopidae in the Raffles Museum. — *J. Siam Soc., Nat. Hist. Suppl.* 8 (1931) 228.
- Burkill, A dictionary of the economic products of the Malay peninsula. — *J. Siam Soc., Nat. Hist. Suppl.* 10 (1935) 68.
- Crevost & Pételot, Catalogue des produits de l'Indochine. — *J. Siam Soc., Nat. Hist. Suppl.* 10 (1935) 69.

PUBLICATIONS DEVOTED TO A. F. G. KERR
OR TO HIS COLLECTIONS

- H. N. Dixon, Mosses of Kaw Tao. — *J. Siam Soc., Nat. Hist. Suppl.* 8 (1929) 19—21.
- Editorial (by E. J. Godfrey), A. F. G. Kerr, B. A., M. B., F. L. S. — *J. Siam Soc., Nat. Hist. Suppl.* 8 (1932) 344—345.
- E. J. Godfrey, A list of the butterflies collected by Dr. A. F. G. Kerr in peninsular Siam. — *J. Siam Soc., Nat. Hist. Suppl.* 8 (1932) 263—277, and a supplement 321—331. (In the first part 292 spp. — M. J.).
- H. N. Dixon, On the moss flora of Siam. — *J. Siam Soc., Nat. Hist. Suppl.* 9 (1932) 1—51.
- H. N. Dixon, Further contributions to the moss flora of Siam. — *J. Siam Soc., Nat. Hist. Suppl.* 10 (1935) 1—30.
- H. N. Dixon, On a collection of mosses from Laos. — *Ann. Bryol.* 9 (1936) 61—72.
- F. Gagnepain, Kerr (A. F. G.). — *Fl. Gén. Indochine*, tome prélim. (1943) 43—44.
- Malcolm A. Smith, Obituary Note on A. F. G. Kerr. — *Proc. Linn. Soc.* 154th sess. (1943) 285—286.
- M. J. van Steenis-Kruseman, Kerr, Arthur Francis George. — *Fl. Mal.* I, 1 (1950) 277—278; I, 5 (1958) ccxcii.

KERR'S NUMBERS

General Herbarium and Orchid Herbarium. There is some unnumbered Kerr material from various places and dates. If difficulties arise with the localisation, the date and the Itinerary will give the clue. The great majority of Kerr's phanerogams and pteridophytes were provided with a number, according to two parallel-running systems, one for the General Herbarium and one for the Orchid Herbarium. There is a third system, distinguished by the letter M, for the mosses; see below.

The General Herbarium starts with 501 and goes continuously on to 21,845; after a gap the numbers continue from 24,331 to 24,409; any higher

numbers are not known¹⁸). In the list of his numbers, preserved at Kew, no other names occur than those of South East Asiatic plants.

By the time Kerr collected number 501 as the first plant in his General Herbarium, the foregoing 500 numbers were still blank, as Kerr wanted to, and actually did, preserve Orchid specimens corresponding to the sketches that he had earlier prepared. It is for this reason that the dates of the herbarium numbers 1—221 are not related to their sequence of collecting, since their numbers are actually the ones of the sketches. When the first 500 numbers, all of Orchids, were completed, Kerr continued with 01, 02, etc., always keeping the Orchids apart from his other collections. The highest number of this kind is 01025, which means that altogether his Orchid collections amount to 1525.

The reason why I have refrained from dealing with this part of his collections is that at present the Orchids of Thailand are being worked up by G. Seidenfaden & Tem Smitinand in a preliminary list under the title "The Orchids of Thailand", published by the Siam Society, Bangkok, part I (1959) 98 + 3 pp., + map + plates 1—2, part II¹ (1959) 99—184 + plates 3—5, part II² (1960) 185—326 + plates 6—13, and part III (1961) 327—516, pl. 14—21, the total number of text figures amounting to 381. This publication deals with all known collections, of which Kerr's form the bulk. For each collection the region is given where it was found. If necessary, the date of the collection can be checked up in the present Itinerary, and the approximate locality thus be found.

A-, B-, and C-numbers. Where necessary and possible, Kerr often completed a collection with supplementary material from a nearby place. This he gave the same number as the original collection, but marked with an "A".

"B"-numbers are collections of which the original specimen had been lost, notably in a dispatch of herbarium material which Kerr had sent off to Kew in January 1911, and about which nothing more was ever heard. Kerr, who had kept dispatch records of the plants, set out to replace the lost numbers by new, again from Doi Sutep. These collections were largely made between November 1911 and February 1912; they bear the original numbers with a "B".

There are a few numbers of that period marked with a "C". Although not for certain, I suppose that they were collected to complete certain collections of the B-series.

Belated numbers. Such numbers were often given after several of Kerr's greater tours, especially in later years. We can imagine that on his return it was found that some collections had not been numbered on the spot, or that they represented more than one species. Such collections bear the actual place and date, but bear a later number than the last one given on that tour. Often these belated numbers interfere with fresh collections made at Bangkok. It can only be to this practice that Burkill's remark applies, that Kerr numbered partly in the field, partly after study. Otherwise his series of numbers (of non-Orchids, that is) is never interrupted.

The collections made at Bangkok in the intervals between his tours are

¹⁸) The ultimate figure might be somewhat higher. It was taken from a number list in which only the names have been filled in without any locality. As the last ones of his field books are missing, we have no accurate data after 15 May 1932.

often not consecutively dated. Where the present Itinerary records a series of numbers which was collected at Bangkok during a certain period, this does not say anything about the actual order in which these were collected. **Cryptogams.** Kerr's ferns were numbered in the same series as the Phanerogams. One publication is known which deals with Kerr's ferns; see p. 484.

Kerr numbered his mosses with a separate series of numbers preceded (on the labels) by the letter M. The highest number, found in Dixon's paper of 1935, is 594, collected 30 VII 1931. The collection made in Laos in 1932, written up by Dixon in a paper of 1936, is numbered 466—528. It is not known why these later numbers are lower than the ones collected in 1931.

The four publications by H. N. Dixon dealing with Kerr's mosses have been listed on p. 446.

It is not known that Kerr ever collected Fungi or Algae.

Unnumbered specimens. Throughout Kerr's collections there are specimens without a number, but these are very few, and through the date can always be located. Many of them are from Bangkok.

M. F. G. Kerr labels. These are misprints for labels to collections made by his brother F. H. W. Kerr; see p. 479.

KERR'S COLLECTIONS

Phanerogams and Ferns. When Kerr had collected a number of specimens, he mailed the dried plants to Kew in small consignments. From Kew the duplicates were further distributed. The scheme of distribution underwent changes in the course of time. According to a list kindly communicated by Mr. L. L. Forman and to records kept by myself the scheme was approximately as follows: Kew (K), Dublin (TCD), Paris (P), Berkeley (UC), Edinburgh (E), Calcutta (CAL), Leiden (L), Aberdeen (ABD), Manila (PNH). Lower on the list were Arnold Arboretum (A), Berlin (B), Singapore (SING), Oxford (OXF), Dehra Dun (DD), Coimbatore (MH), and Cambridge (CGE). Part of the material was distributed with no other data than a label of about one square inch, with the number, the date, and the word "Siam". A fairly large number of his collections is, although available for study, at Kew still in process of distribution. As it has been decided that only completely named material shall be distributed, it may take a long time before all duplicates will have reached their destination.

As a rule, one duplicate was kept by Kerr for his private herbarium. After 1920 he also deposited one duplicate in the herbarium of the Botanical Section of the Ministry of Agriculture at Bangkok (BK), where the material still is kept, ready for enquiry.

Kerr's private herbarium was further enriched with several thousands of numbers collected by some persons whom he inspired; see p. 476. His private herbarium was bequeathed by him in 1942 to the British Museum (BM); it consisted then of 32,546 specimens. A comparison made in several families disclosed that not all the unicates are in the British Museum, but that there are also unicates at Kew, and possibly in other herbaria, mainly Aberdeen and Edinburgh.

The whole of his dried orchid material, however, and all his orchid

drawings, are at Kew. Of the living orchids he had sent to Dublin, about 17 were there still alive in 1960.

It is known that Craib described several species on plants grown from seed sent by Kerr to Aberdeen. This implies that type material of those species needs not naturally be in the Kew Herbarium.

Mosses. Kerr's own set of mosses is at Kew, although incomplete. Dixon (1936) states that of the Laos mosses the types of the new species are in his own herbarium, now in the British Museum, and that almost complete sets are at Kew and at Aberdeen.

Animals. Among Kerr's zoological collections, the butterflies are most important. He started to collect butterflies in 1928 at the instigation of E. J. Godfrey, who published the results (p. 446). Godfrey's collection, into which Kerr's butterflies had been incorporated, is now in the British Museum (see *J. Siam Soc., Nat. Hist. Suppl.* 9: 264. 1933).

Kerr also collected dragonflies, spiders, and shells. I do not know where these are.

KERR'S LOCALITIES

The transcription of Siamese geographic names in European characters has presented problems which still are to be solved. On no two maps all the names are exactly alike. To avoid confusion, Kerr's own spelling has been retained throughout the Itinerary, and for the important points in the routes, the coordinates of latitude and longitude have been given. We have taken care that every place can be located by means of these points with an accuracy of less than 100 km. Since one dot on a distribution map in print generally covers the equivalent of an area of 15,000 sq. km at least, we trust that this accuracy is sufficient.

Difficulties may arise where place names used by Kerr have afterwards been replaced by entirely new ones, like Korat, now Nakhon Ratchasima, Tachin, now Muang Samut Sakon, or components of new names have since been added or omitted, like Lampang, now Muang Lampang, the Me Ping, now on some maps Mae Nam Ping. Some of these names, together with those frequented by Kerr, have been listed below, with their present orthography and coordinates, data which have been omitted for the same names in the Itinerary.

LIST OF PLACES FREQUENTED BY KERR

The first name is the one adopted by Kerr himself, followed by current synonyms, if any, mostly according to the Times Atlas, from where also the latitude and longitude have been taken.

Aran Pratet = Aranya Prathet 13°43'N 102°31'E.

Ayuthia = Ayutthaya 14°20'N 100°35'E.

Bandawn = Surat (Thani) 9°09'N 99°20'E.

Bangkok 13°44'N 100°30'E.

Chaiyapum = Chaiyaphum 15°46'N 101°55'E.

Chantabun, Chantaburi = Chanthaburi 12°35'N 102°08'E.

Chiangmai = Chiang Mai 18°18'N 98°59'E.

Chiengrai = Muang Chiang Rai 19°56'N 99°51'E.
 Chumpawn = Chumpon 10°30'N 99°11'E.
 Doi Angka, Doi Inthanon ¹⁹⁾ 18°35'N 98°29'E.
 Doi Sutep, Doi Sootep 18°50'N 98°54'E.
 Hua Hin = Ban Hua Hin 12°56'N 100°02'E.
 Kampeng Pet = Kamphaeng Phet 16°26'N 99°31'E.
 Kanburi = Kanchanaburi 14°02'N 99°32'E.
 Kemarat = Khemmarat 16°04'N 105°10'E.
 Kawnken, Kon Ken = Muang Khaun Kaen 16°25'N 102°50'E.
 Korat = Nakhon Ratchasima 15°N 102°06'E.
 Lampang = Muang Lampang 18°16'N 99°30'E.
 Lamphun = Muang Lamphun 18°36'N 99°02'E.
 Menam Pasak = Mae Nam Pa Sak, Me Sak, river in East Central Siam.
 Me Ping = Mae Nam Ping or Ping, river from Chiang Mai to the S.
 Nakhawn Sritamarat = Nakhon Si Thammarat 8°24'N 99°58'E.
 Paknampo 15°52'N 100°04'E (near Nakhon Sawan).
 Pattani 6°53'N 101°15'E.
 Petchabun = Muang Petchabun 16°25'N 101°08'E.
 Pitsanulok = Muang Phitsanulok 16°50'N 100°15'E.
 Prachuap = Prachuap Khiri Khan 11°50'N 99°49'E.
 Raheng = Tak 16°51'N 99°08'E.
 Singora = Sonkhla 7°12'N 100°35'E.
 Sriracha = Ban Si Racha 13°09'N 100°48'E.
 Supanburi = Suphan Buri 14°14'N 100°07'E.
 Surin 14°53'N 103°29'E.
 Tachin = (Muang) Samut Sakon 13°31'N 100°13'E.
 Ubon = Muang Ubon, Ubol 15°15'N 104°50'E.
 Udawn = Udon Thani 17°25'N 102°45'E.

KERR'S ITINERARY

This Itinerary was prepared from Kerr's field books together with his Tour Reports. Coordinates of latitude and longitude have been given where this was thought essential or useful. For the more important towns and frequented localities, these data can be found in the foregoing List of Places frequented by Kerr.

Only part of the names mentioned by Kerr in his Tour Reports are found on his labels, and accordingly in this Itinerary.

During the preparation it appeared that Kerr, who was never long in one place, after having left it, usually kept writing the name of that place to the plants he collected on the way until he reached the next locality. If he collected in the proximity of a river, he mostly filled in merely the name of that river, or, if he passed by a town at some distance, he filled in the name of that town. The inaccuracies, however, seldom amount to more than 50 km. Where necessary, I have tried, by breaking a series of numbers from a long traverse into two or three smaller ones, to decrease the deviation.

In connection with Kerr's occasional giving of belated numbers, the

¹⁹⁾ Doi Inthanon is a name which occurs only on maps. Locally, the mountain is known exclusively under the name Doi Angka.

reader is advised first to look up the collector's number; if the material is unnumbered, then the date.

The months are indicated by Roman figures. The collector's numbers are in brackets. Kerr's own spelling has been retained, but sometimes a more current name has been added in brackets.

It appeared that Kerr sometimes made minor errors with data and names. As these are rather miswritings, very few in number, no attempt has been made here to correct them.

From Bangkok by train to Paknambo 1 XII 1908 (501)²⁰, then up the river Me Ping via Raheng 7 XII (502—505) to Chiengmai 15 XII (506—508). From there making short excursions in the vicinity, sometimes as far as Phre 18°07'N 100°07'E, or Doi Chiengdao 19°26'N 98°54'E, or Doi Saket 25 km NE of Chiengmai, but mainly collecting on Doi Sutep (1676 m) 18°50'N 98°53'E, 2 I 1909—27 VIII 1911 (509—2005). — The name of this mountain was initially spelled Doi Sootep, abbreviated D. S. T. The most important localities on this mountain are Hui (also spelled Hooy or Hoey) Chiang Kien, abbreviated H. C. K., on the NE. side where Kerr had a hut at about 650 m; Wat (means temple) Sutep at about 1100 m; Deer Valley, and the Chawncêng Sanatorium, by Kerr referred to as 'Sanitorium', a resort for missionaries in the hot season, at about 1650 m. Certainly the great majority of Kerr's collections in this period are from Doi Sutep, which he visited intermittently, but it was often found impossible to localize the names of his other trips in the vicinity. We only know that they are from the Payap province in northern Siam; see also Kerr's List of Geographic Names.

Trip to Bangkok. Down the river Me Ping from Chiengmai via Pak Baung 4 IX (2006), Doi Noi 18°28'N 98°50'E, 5 IX (2007—2012), Wang Maw 6 IX (2013—2014), Muang Haut 18°06'N 98°55'E, 6 IX (2015—2021), Ban Kaw 7 IX (2022—2025), Ban Na gorge 17°20'N 98°55'E, 8 IX (2026—2029), Kampeng Pet 10 IX (2030). Stay at Sriracha SE of Bangkok 17—30 IX (2035—2150). From Bangkok 5 X (2151) up the river Me Ping, via Kampeng Pet 11—12 X (2152—2162), Ban Tak 17°05'N 99°02'E, 13—16 X (2163—2171), Ban Na gorge 17 X (2172—2178), Ban S'mông 18 X (2179—2184), King Ok Ma 20 X (2185—2190), Ap Nang 21 X (2191—2192), Fa Man 23 X (2193—2195), gorge below Ban Kaw 24 X (2196—2197), Ta Dua 26 X (2198—2200), Sop Chem 27 X (2201—2203), Muang Haut 27 X (2204—2206), Doi Noi 29 X (2207—2210) and so back to Chiengmai.

Collecting on Doi Sutep and vicinity 4 XI—18 I 1912 (2211—2304).

Trip to Lakon, describing an approximate circle NE of Chiengmai. Left Chiengmai 2 II to Lampun and so to Me Ta (50 km SE of Chiengmai) via Pat Kawng to Doi Din Deng (c. 600 m) 2—3 II (2305—2322), then in southeasterly direction to Lakon 4 II (2323—2325), and the Me Maw, the Me Huak, Palat, Pang Pue, Me Chang, Hue Ka, 7—9 II (2326—2347), Hue Kamin, Rawn Kwang 18°21'N 100°19'E, 10—14 II (2348—2367), the Hui Me K'mi, the Hui Me Sa Kawn, Muang Sa, 14—19 II (2368—2398), the Sop Ngao river, Ban Hue Sai 21—23 II (2399—2415), visiting Doi Wao (probably a ridge NNE—SSW \pm 19°20'N 100°10'E, \pm 1000 m) 23—26 II

²⁰) For the numbers under 500, see p. 446.

(2416—2459), then via Pang Pa Hom 28 II (2460—2465) to Chiengkam 19°30'N 100°15'E and via the Me Lao, Muang Tong, Chieng Kien, Ban Hue Suk 28 II—3 III (2466—2499) to Chiengrai, and from there in south-westerly directions via Ban Hue Saw, the Me Sue, Ban Ta Kaw, Wieng Papao, Doi Nang Keo 6—12 III (2500—2528), back to Chiengmai.

Collecting in the vicinity of Chiengmai 16 III—17 IV (2529—2546).

Trip to Lakon. Left Chiengmai by cycle to Lampun, then going SE for Me Ta (\pm 40 km SE of Chiengmai) and collecting in the neighbourhood 19 IV—10 V (2547—2583).

Collecting about Chiengmai and on Doi Sutep 12 V—30 VIII (2584—2675). One number was apparently sent from Sriracha 30 IX (2676); then the collecting about Chiengmai and on Doi Sutep is continued 1 IX—15 I 1913 (2677—2822).

Trip to Lampun, Me Awn, Muang Prao, Chieng Dao, P. Samong. Went from Chiengmai via Lampun about 30 km in southeasterly directions, collecting along the Me Awn, at Ban Pa Suk 18—22 I (2823—2837), then proceeding in northern directions E of Chiengmai via Muang Prao to Chieng Dao 65 km N of Chiengmai 23—25 I (2838—2845), collected at Me Teng and climbed Doi Chiengdao (2182 m) 19°24'N 98°54'E to a height of 1800 m, 26 I—1 II (2846—2896), then, while inspecting the vaccination in the villages, via Ban Pong Yeng, Ban Kawng Hê, Samong, Muang Ha, back to Chiengmai 1—5 II (2897—2922).

Collecting in the neighbourhood of Chiengmai 5—28 II (2923—2929).

Trip to Bangkok. Left Chiengmai 10 III, collecting along the river-banks, via Chawng Tawng²¹), Keng Soi, Keng Ap Nang, Keng Sawng Kwe, Hue Pa Ka, Ban Na gorge 17°20'N 98°55'E, Ban Tak 10—20 III (2930—2971), reaching Raheng 21 III, proceeding via Kao Pra Dang, Wang Chao, Ban Kaw Rak Kiat, Kampeng Pet 22—23 III (2972—2995), and via Pak Ang, Ban Kon, to Paknampo 23—25 III (2996—3003); then by train to Bangkok. Two numbers from Kosechiang (?) 3 IV (3004—3005). After a leave to Europe the same trip was made in the opposite direction, starting the collecting at Paknampo, going up the river via Ban Den, Kao Sung 8—9 XII (3006—3021), on 10 XII not going ashore, then via Klawng Kun Yen 11 XII (3022—3028) reaching Kampeng Pet 12 XII, then via Wang Chao 13 XII (3029—3031) reaching Raheng 14 XII, then via Pak Wang, Ban Na gorge, Hui Puka, Hui Ta Pin, Keng Ap Nang, Hui Um La, Ban Kaw, Ban Pe 15—23 XII (3032—3066) reaching Muang Haut 24 XII, and so via Doi Noi 18°28'N 98°50'E back to Chiengmai, where probably the next two numbers were collected 31 XII—5 I 1914 (3074—3075).

Trip to Lakawn (= Lakon), Lampang, and Chai Hom Tai. Left Chiengmai 4 I to Khun Tan \pm 40 km to the SE, where collecting was started, then going to Lampang 5—15 I (3076—3089), then northwards to Chai Hom Tai (or Che Hom, 60 km E of Chiengmai) 16 I (3090—3095), then going in western directions by Ban Pa Mieng ("the dirtiest village I have seen"), where a hill was explored up to 1200 m, and Doi Khun Yuam²²), and Ban Khun Awn 18—20 I (3096—3126); back at Chiengmai 21 I.

²¹) or Chaum Taung, at present Ampo 18°26'N 99°41'E.

²²) This cannot be Kao Khun Yuam (1741 m) 19°24'N 100°29'E, which is too far from Chiengmai to return in one day.

Collecting in the vicinity of Chiengmai 15 II—4 III (3127—3151).

Trip to Denchai. Left Chiengmai 6 III for Lampun, where collecting was commenced on the way to Lampang 7—8 III (3152—3158). Then without collecting to Pah Kun and by train to Denchai 18°N 100°05'E 16—25 III (3159—3165). Most and perhaps all of the following collections were made some 20 km E and SE of Lampang: at Pa Hin, Pang Pue, the Me Chang, Me Maw, Palat, Khun Tan 26 III—1 IV (3166—3191); then via Lampun 1 IV (3192) back to Chiengmai.

Collecting about Chiengmai and on Doi Sutep 11 IV—21 III 1915 (3193—3565).

Thip to Pong Yeng (25 km NW of Chiengmai), Kawng Kê, and the Me Sa, with Dr. Mac Kean 29 III—1 IV (3566—3589).

Collecting on Doi Sutep 11—12 V (3590—3598).

Trip to Lampang and collecting at Palat, Me Chang, Me Ta, Pang Pue 22 V—3 VI (3599—3639).

Collecting about Chiengmai 13—25 VI (3640—3644).

Trip to the Pong Yeng area (25 km NW of Chiengmai), collecting also at Ai Noi 21—27 VII (3645—3655).

Trip to Bangkok. Left Chiengmai 3 VIII down the Me Ping, collected 4 VIII (3656), passing Muang Hawt 5 VIII, collected two more numbers 7 VIII (3657—3658), passed Raheng 8 VIII, arrived at Bangkok 11 VIII, from there to Europe to serve in World War I. On his return took up collecting at Chainat 15°12'N 100°07'E, 30 III 1919 (3659—3661), Paknampo 1—7 IV (3662—3664), and Bangkok 8 IV—11 V (3666—3683).

Tour to Patani, Singora, and Padang Besar in Peninsular Siam. Left Bangkok 12 V by train for Hue Yang and Chumpawn; started collecting at Utapao near Hat Yai 7°N 100°30'E, 15 V (3685—3688); then by train to Patani 15—16 V (3689—3690) and via Kok Po 18 V (3691—3693 and 3695) to Padang Besar 6°40'N 100°20'E, 21—23 V (3694 and 3696—3698), also to Ban Dawn, and via Chumpawn 29 V back to Bangkok.

Collecting at Bangkok 31 V—6 XI (3699—3852).

Trip to Ayuthia prov. (\pm 60 km N of Bangkok); collected at Klawng Sing Kanat, Muang Supan, Ban Chao Chet 8—13 XI (3853—3856).

Collecting at Bangkok 15—19 XI (3857—3875).

Trip to Potaram 13°42'N 99°52'E, 25—27 XI (3876—3879).

Collecting at Bangkok 4—17 XII (3880—3905).

Trip to Lopburi 14°47'N 100°37'E, 20—21 XII (3906—3907), to Ayuthia 22 XII (3908), and to Paknampo 27—29 XII (3909—3910), returning via Ayuthia 30 XII—2 I 1920 (3911—3913).

Collecting at Bangkok 5—15 I (3914—3933).

Trip to Utai 15°20'N 100°E, Payuha, and Ban Ma Kawk 18—19 I (3934—3942).

Collecting at Bangkok 21—25 I (3943—3965).

Trip to Bang Pla Soi 13°23'N 100°59'E, 27 I (3966—3968).

Collecting at Bangkok 31 I—20 II (3969—4022).

Trip to Tachin 22 II (4023—4029).

Collecting at Bangkok 22—24 II (4030—4031).

Trip to Sriracha and Ban Dan 3—5 III (4032—4053).

Collecting at Bangkok 10—25 III (4054—4109).

Trip to Sriracha, with excursions to Ban Dan, Nawng Nam Kio, Aon Ka Siu, Hup Bon 28 III—12 IV (4110—4204).

Collecting at Bangkok 15—30 IV (4205—4230).

Trip to Sriracha 6 V—5 VI (4231—4260).

Collecting at Bangkok 11 VI—30 VII (4261—4369).

Trip to Sriracha 1—3 VIII (4370—4377).

Collecting at Bangkok 5 VIII—17 X (4378—4524).

Trip to Sriracha 21—23 X (4525—4531).

Collecting at Bangkok 31 X (4532—4534).

From Bangkok to Chiangmai. Left Bangkok 4 XI by train for Paknampo, then by boat up the Me Ping, via Ban Hu Kwang 7 XI (4535—4537), Ban Den 8 XI (4538—4543), Ban Klawng Pong (in Kampong Pet distr.) 9 XI (4544—4552), Ban Kon 10 XI (4561—4573), Raheng 15 XI (4574—4577), then via Ban Pa Yang and Sam Ngao 17°10'N 99°03'E, 16 XI (4578—4588), Doi Tung Cha 18 XI (4589—4606), Pa Mawn and Keng Chum 21 XI (4617—4622), Hat Ki Ngua and Keng Ta Pin 22 XI (4623—4624), Keng Soi 23 XI (4625—4647), Keng Um Kawng 24 XI (4648—4651), H. Salian 25 XI (4652—4653), Ban Hat Guak 26 XI (4654—4658), Ban Mut Ka 17°50'N 98°38'E, 27 XI (4659), Ban Ta Dûa 28 XI (4660—4666), Doi Kai Kia 30 XI (4667—4669); at Chiangmai 4 XII.

Collecting in the vicinity of Chiangmai and on Doi Sutep 21 XII (4670—4692).

Tour through North Siam [1]²³). Left Chiangmai 27 I 1921 in eastern directions up the Me Awn valley, via Ban Lue and Khun Awn 28—31 I 4693—4741, Che Sawng 18°47'N 99°30'E, 31 I—3 II (4742—4773), then going southwards and following the Me Wang along Che Hom (60 km E of Chiangmai) 4—6 II (4774—4802) to Lampang 7—10 II (4803—4813), there turning E to Palat 10 II (4814—4821), Me Maw and Me Chang 11 II (4822—4826), Pang Pue 11—12 II (4827—4834), Me Ta 12—13 II (4835—4841), Hue Kamin river to Prê 18°10'N 100°10'E, 13—16 II (4842—4847), turning to the NE, via Rawng Kwang 18°21'N 100°19'E along the river Hue Kami 16—18 II (4848—4864), Bum Yun 19 II (4865—4870), Nan 18°45'N 100°50'E and collecting in the vicinity 20—24 II (4871—4900), and further to the NE on Doi Pu Ka (1700 m) 19°08'N 101°07'E, 25—27 II (4901—4963). Via the mountainous district of Muang Pua 19°12'N 100°55'E, 1—2 III (4964—4971), going E to Ban Sakat and to a village peopled by Tins, hence named Ban Tin 2—3 III (4972—4987). Collecting on Mt Pu Huat (1700 m) 19°18'N 101°15'E, 3 III (4988—5002), back at Ban Tin 4 III (5003—5012), and at Muang Pua 5—6 III (5013—5019). Then in a western direction via Hue Kua 7 III (5020—5032) to Doi Tiu (1100 m) 7—9 III (5033—5060), then followed the Hue Wao and the Hue Sala 9—10 III (5061—5076), to the West to Muang Pong 19°10'N 100°20'E, 11—14 III (5077—5080), then with a bend to the NW via Ban Kao Kam 15—III (5081—5087) and the river Me Ing 16 III (5088—5090) to Muang Pan 19°30'N 99°42'E, 17 III (5091—5098), then 12 km to the E on Doi Duan 19—20 III (5099—5110), back to Muang Pan 21 III (5111—5121) and making N for Chiengrai 22—25 III (5122—5130), continuing northwards for Chiengsen 20°13'N

²³) The figures in square brackets refer to the Tour Reports listed on p. 441.

99°54'E, 25 III (5131—5135), then following the Me Chan 26—27 III (5136—5151) and the Me Koh or the Me Ngam 28 III (5152—5158) to the W and SW to Muang Fang 19°55'N 99°12'E, from there a trip to the NW to Doi Pahom Poh near the Burmese frontier (camped at 1550 m; to the summit 2260 m 2 IV) 30 III—3 IV (5165—5218), back at Muang Fang 3—5 IV (5219—5235), going now S via Me Poi and Chieng Dao 19°25'N 98°58'E, 6—7 IV (5236—5247) and along the Me Teng 7 IV (5248—5252) back to Chiengmai 8 IV.

Number 5253 was sent by Th. H. (name illegible) from Bangkok. Collected on Doi Sutep 13—24 IV (5254—5264).

Tour in the NW corner of Siam. Left Chiengmai 26 IV down the Me Ping 27—28 IV (5265—5271) to Chawng Tawng 29 IV (5272—5273), then going NW to Doi Intanon (local name Doi Angka; on the summit 2580 m 1—3 V) 18°35'N 98°29'E, 30 IV—4 V (5274—5351), back at Chawng Tawng and following the Me Kang 5—6 V (5352—5356) and the Me Ya 6—7 V (5357—5369) westwards to Doi Pa Kao (1740 m) 18°25'N 98°25'E, 7—8 V (5370—5394), then northwards along the Me Chem 9—10 V (5395—5412), passing Doi Muan Chang Sa 11 V (5413—5417), to the NW along the Me Aw 11—12 V (5418—5421) and the Me Yawt 12 V (5422—5423), crossing the watershed at Doi Ngao (1600 m) 18°47'N 98°12'E, 12—13 V (5424—5445) to Kun Yuam 18°50'N 97°58'E, 13—15 V (5446—5455), turning straight N for a short distance along the Me Surin 15—16 V (5456—5462) passing Hue Pong to Me Hawng Sawm 19°16'N 98°E, 16—17 V (5463—5468); leaving 20 V northwards to Ban Hue Pa and Hue Pang Hung 21 V (5469—5474), Doi Tam Ma Kieng and Me Lan 22—23 V (5475—5490) to Doi Kiu Lom (1780 m) 19°25'N 98°18'E, 23—24 V (5491—5503), going SE to Muang Poi and Doi Yao 19°20'N 98°28'E, 25—26 V (5504—5513), going NE to Muang Heng 19°39'N 98°40'E, 29 V (5514—5520), then SE to Muang Kawng 30—31 V (5521—5533), then E to Doi Chiengdao (2130 m) 19°27'N 98°59'E, 1—8 VI (5534—5631), then southwards 8—9 VI (5632—5635) back to Chiengmai 12 VI (5636—5637).

Collecting in the vicinity of Chiengmai and on Doi Sutep 3 VII—24 X (5638—5661).

After a leave to Europe resumed collecting at Chiengmai 19 III 1922 (5662).

Tour in North Central Siam [2]. Left Chiengmai 22 III by train southwards via Muang Pichit 25—26 III (5663—5675) to Bang Mun Nak 16°02'N 100°27'E, thence northeastwards to Petchabun 26 III—2 IV (5676—5732)²⁴, turning northwards via Lom Sak Kao 3—6 IV (5733—5748) and then NW via Kao Keo Ngoi and Kao Keo Kang 6—7 IV (5749—5771) to Pu Lomlo peak (\pm 1600 m) 16°48'N 101°E, 8—9 IV (5772—5790), back to Kao Keo Kang 10 IV (5791—5805), from there along the Hue Nam Man 11 IV (5806—5814) to Nakawn Tai 17°06'N 100°50'E, and traversing further NW 11—18 IV (5815—5879) to Utaradit 20 IV (5880—5893) and

²⁴) This is what the field-books give, which is at variance with the printed record. The latter gives no reference to Muang Pichit, stating that Bang Num Mak was reached on 24 III and left on 25 III for Petchabun, that a stop was made at Ban Chonden on 27 III, that forests were visited at Ban Nayom 29 III, and that Petchabun was reached 31 III.

Laple 17°30'N 100°02'E, 25 IV (5894—5898), turning SE to Sawankalok 17°20'N 99°50'E, 26—28 IV (5899—5903), following the Me Yam southwards to Sukotai 17°01'N, 30 IV—2 V (5904—5910) and to Mt Kao Luang (1150 m) 16°55'N 99°40'E, 2—4 V (5911—5951); back on the trail from Sukotai and going to Kampeng Pet 5—10 V (5952—5972), following the Me Ping downwards to visit Kao Naw 15°58'N 99°52'E, 11 V (5973—5974) and further to Nakawn Sawan to collect there in the vicinity 11—22 V (5975—6000). After some delay when the party was robbed, gone westwards 23 V and up the Me Wong 23—28 V (6001—6036); at 99°55'E turning N to reach the Klawng Klung at 16°10'N, then turning SW and following that river 29 V—2 VI (6037—6051); back at the Me Wong 2—3 VI (6052—6059), at Kao Pado 4—5 VI (6060—6079), crossing the watershed to the Me Klawng at 1200 m, arriving at Me Lamung 16°50'N 98°59'E, 6 VI and collecting in a NNW direction 6—9 VI (6080—6111) towards Ban Umpang 16°02'N 98°50'E, 9—10 VI (6112—6117), and the Kao Hua limestone hills 12—13 VI (6118—6134); back to the Me Klawng 14—16 VI (6135—6143). Following the Me Mue to the NNW, crossed then Burmese territory 17—20 VI (6135—6152) to Me Sawt 23—25 VI (6153—6162), followed the river again 26—28 VI (6163—6172) and turned northwards crossing a ridge Doi Pe Po (1000 m) 17°20'N 98°22'E, 29 VI (6173—6183), reaching Muang Tun 1 VII (6184—6196), then proceeding northwards across a plateau up to 1200 m E of the Me Tun river 2—4 VII (6197—6239), reaching the river 5 VII (6240—6253) at Ban Um Koi 17°50'N 98°20'E and going in the same direction 6—7 III (6254—6260) to Ban Baw Luang 8 VII (6261—6267) and following the Me Chem valley N to Ban Na Chawn 18°40'N 98°20'E, 9—16 VII (6268—6292), then southwards to Doi Inthanon (local name Doi Angka; 2580 m) 18°35'N 98°29'E, camping at Pa Ngem 16—18 VII (6293—6362), back at Chiangmai 20 VII.

Some collecting was done in the vicinity of Chiangmai and on Doi Sutep 1 VIII—16 X (6363—6379); then going to the WNW via Me Ta Chang 17 X (6380—6381) and Muang Ha 18 X (6382—6387) to Samong, turning northwards 18—21 X (6388—6410) to the Me Rim 22—26 X (6411—6452), and proceeding to the Me Teng \pm 19°20'N 98°45'E, 26 X—1 XI (6453—6504), then turning E to Chiengdao 19°25'N 98°58'E, 2—12 XI (6505—6666); back to Me Teng 12—13 XI (6667—6673); on Doi Sutep again 17—18 XI (6674—6701).

Collecting at Bangkok 14 I—25 III 1923 (6702—6774).

Trip to Sriracha; collected at N. Kaw 30 III (6775—6795).

Trip to the island of Kaw Chang 12°N 102°25'E, collecting at Klawng Mayom Salak Kawk 2—6 IV (6796—6934). Then back to the mainland, collecting at the mouth of Chantabun river 12°30'N 102°E, 7 IV (6935—6941) and Lem Sing 8 IV (6942—6949).

Collecting at Bangkok 11 IV—6 V (6950—6992). One number was apparently sent from Muang Fang 19°55'N 99°12'E, 27 III (6993).

Collecting in the province of Nakawn Chaisi NW of Bangkok at Nang Buat 17 V (6994—6995) and Dom Bang, Supanburi \pm 14°30'N 100°07'E, 18—20 V (6996—7006). Then via Ayuthia 22 V (7007) to Saraburi on the river Me Nam Sak 14°40'N 100°50'E, 26 V—6 VI (7008—7062).

Collecting at Bangkok 10 VI—1 VII (7063—7076).

Tour to southern Peninsular Siam [3]. Left Bangkok by train 3 VII for Kok Po $6^{\circ}40'N$ $101^{\circ}05'E$ near Pattani and collected there 6 VII (7077—7086), continued the voyage by train to Bukit $6^{\circ}10'N$ $101^{\circ}50'E$, 7—10 VII (7087—7144). Back by train for a short distance to Tanjong Mas and thence NE to Bang Nara (at present Narathiwat) at the coast 10 VII (7145—7146), then westwards to Bachaw and the hills W of that place $6^{\circ}25'N$ $101^{\circ}35'E$, 10—17 VII (7147—7229), turning N to Saiburi on the coast by motorcar and NW to Pattani 17—19 VII (7230—7247). From here a traverse was made via Yala $6^{\circ}35'N$ $101^{\circ}15'E$, 21—22 VII (7248—7267) and much was collected on the way from Banang Sta $6^{\circ}16'N$ $101^{\circ}15'E$, 22—31 VII (7268—7426) to Betong $5^{\circ}45'N$ $101^{\circ}02'E$ and vicinity 31 VII—9 VIII (7427—7535) before exploring Gunung Ina (1250 m) 20 km to the E on the Perak frontier 10—12 VIII (7536—7601); back at Betong 13—14 VIII (7602—7636), then because of a poisoned finger to Penang, after treatment back at Betong 23 VIII and returning in a northern direction 23—27 VIII (7637—7690) via Ban To $6^{\circ}02'N$ $101^{\circ}10'E$ on bamboo rafts down the river Klawng-Patani back to Banang Sta 28 VIII—2 IX (7691—7721) and Yala 3—4 IX (7722—7732); back at Pattani 5—8 IX (7733—7745), leaving 9 IX for the Khao Kalakiri or Bukit Basa hills (980 m) $6^{\circ}37'N$ $101^{\circ}06'E$, 9—11 IX (7746—7816), back at Pattani 11—13 IX (7817—7848); returning to Bangkok 14 IX.

Collecting at Bangkok 23 IX—7 X (7849—7870). Belated numbers (see p. 447) from the foregoing Pattani tour (7871—7924). Collecting at Patanet near Bangkok 14 X (7925—7928) and about Bangkok 18 X—2 XII (7929—7951); the numbers 7946—7948 were sent from Chantabun and from Korat.

Tour to Eastern Siam [4]. Left Bangkok 7 XII by train for Keng Koi $14^{\circ}35'N$ $101^{\circ}E$, 7—8 XII (7952—7957), then northwards by boats up the Nam Pasak 9—13 XII (7958—7978) to Chaibadan $15^{\circ}05'N$ $101^{\circ}02'E$, 14—15 XII (7979—7982), then turning eastwards to traverse the Dong Paya Yen forest area 15—17 XII (7983—8028), then via Pang Hua Sua 17 XII (8029—8040), and the plateau of Chan Tuk 18—19 XII (8041—8077) to Si Kiu $14^{\circ}50'N$ $101^{\circ}45'E$, 20 XII (8078—8084), where the train was taken eastwards to Korat. Left Korat 23 XII (8085—8091) in a southern direction to Pak Tong Chai 23—24 XII (8092—8101) and further southwards to the forests on the border of the Korat plateau $14^{\circ}25'N$ $102^{\circ}10'E$ (still labelled Pak Tong Chai), 25—28 XII (8102—8143), there collecting and slowly proceeding eastwards through the region of Katok 29 XII—2 I 1924 (8144—8206) and so to Nang Rawng $14^{\circ}40'N$ $102^{\circ}50'E$, 3—7 I (8207—8221), continuing to Talung 7—8 I (8222—8229), then through the region of Surin 9—10 I (8230—8253) and of Sangka 11—17 I (8254—8317) near the Cambodian frontier at $14^{\circ}20'N$ $104^{\circ}E$; then turning NE via Hui Nua 18—20 I (8318—8324) and Kakan 20 I (8325), then via Kantararam and Warin 21—23 I (8326—8337) to Ubon 23 I (8338). From Ubon in northern directions 25 I (8339—8351) via Muang Sam Sip 26—27 I (8352—8359) to Bung $15^{\circ}50'N$ $104^{\circ}40'E$, 27—29 I (8360—8365) and to Kemarat $16^{\circ}03'N$ $105^{\circ}12'E$, 29 I—1 II (8366—8377), then following the Mekong upstream via Chanuman 2—3 II (8378—8389) to Muk Tahan (or Muk Dahan; opposite Savannakhet) exploring the hills nearby 3—6 II (8390—8414) and again following the Mekong upwards 8—10 II (8415—8423) via Tatpanom and Nakawn Panom 11—13 II (8424—8436), leaving the Mekong at Ta

Uten 17°35'N 114°35'E, 13 II (8437—8444) to follow approximately the Nam Song Kram to the NW 14—16 II (8445—8476) and so through the regions of Wa Nawn Sakon and Chaiyaburi 17—22 II (8477—8546) to Ban Kam Keo 18°10'N 103°30'E; there turning to the SW, through Pon Pisai 23—25 II (8547—8580) to the Hui Luang, which was crossed 26 II at 17°45'N 103°05'E about Nawng Han 25—26 II (8581—8586), making for Udawn 27—28 II (8587—8589). Left Udawn 2 III and collected westwards on a Pu (= hill) 17°25'N 102°20'E 3—4 III (8590—8608), proceeding by Nawng Bua 4—7 III (8609—8624) to Wang Sapung 17°20'N 101°35'E, 7—8 III (8625—8630); from there exploring the Kao Krading (or Pu Krading; 1200 m) 16°50'N 101°40'E, 11—15 III (8639—8758), back at Wang Sapung 18 III (the numbers 8631—8638 and 8759—8779, labelled 'Wang Sapung' were apparently collected on the way). From Wang Sapung northwards to Muang Lui (or Loi or Loei) 19—20 III (8780—8787), then following a river to Chieng Kan on the Mekong 17°35'N 101°35'E, 21—22 III (8788—8790) to visit the nearby mountain Pu Kao Ngon (750 m), returning the same day to Chieng Kan 23 III (8791—8802), then turning SW via Tali and Dansai (so the labels read; actually he was by then some 50 km from the place) 25—27 III (8803—8818), visiting the massif of Pu Tong (1300 m) 17°30'N 101°15'E, 27—29 III (8819—8875), proceeding to Dansai 30 III—1 IV (8876—8886) and following the river Kek via Nakawn Tai 1—4 IV (8887—8910) and Pamak 5—6 IV (8911—8916) so to Pitsanulok 6 IV and back by train to Bangkok 7 IV, having covered about 1800 km on foot.

Excursions to Paknam and Pataram, about 20 km SE of Bangkok 20 IV (8917—8921); and to Tachin 27 IV (8922—8923).

Collecting at Bangkok 30 IV (8924), where also 8925 was collected, dated 2 XII 1923. Belated numbers from the foregoing tour to Eastern Siam (8926—8957); interrupted by collections from Bangkok 4 V (8958—8960), this series of belated numbers is continued (8961—8974); then interrupted by collections from Tachin and Bangkok (8975—8981), the belated numbers are continued (8982—8983).

Trip to Ratburi 13°35'N 99°48'E, 14—20 VII (8984—9047 and 9049); one number from Bangkok 11 VII (9048), and another from Bangkok 17 VIII (9050).

Trip to Saraburi 14°35'N 100°55'E and collected at Muak Lek 30—31 VIII (9051—9088), and, presumably going eastwards, visited Kao Sisiat A and Hin Lap 1—3 IX (9089—9158). Two belated numbers of the foregoing tour to Eastern Siam (9159—9160).

Collecting at Bangkok 14 IX (9161) and at Tachin 21 IX (9162—9163).

Trip to the island of Kaw Chang 12°N 102°25'E [5], going there by boat from Bangkok 24 IX. Collections were made at Klawng Non Si, Klawng Mayom, Salak Kawk, Salak Pet, Klawng Kloi, Klawng Prao, Klawng Son, Lem Dan Kao 26 IX—3 X (9164—9315); back at Bangkok 5 X. Now a mixture follows of belated numbers from Kaw Chang with collections from Bangkok and from Tachin: Tachin 21 IX (9316), Kaw Chang (9317), Bangkok 12—13 X (9318—9319), Kaw Chang (9320), Bangkok 14 X (9321), Kaw Chang (9322—9326), and Bangkok 18 X (9327).

Collecting in the province of Krung Thep (or of Bangkok), at Bang Bawn, Ban Pa In, Wat Sing, and Bangkok 19 X—16 XI (9328—9362).

Tour to Southeastern Siam [6]. Left Bangkok 22 XI by ship for Trat (at present Muang Krat) $12^{\circ}15'N$ $102^{\circ}30'E$, collected at Lem Sing 23 XI (9363—9374), then by boat northwards up river to Ampo Kao Saming to visit the forests there 24—27 XI (9375—9446) and approached the frontier of Cambodia near Baw Rai where the hills were visited $12^{\circ}30'N$ $102^{\circ}45'E$, 27—30 XI (9447—9515), leaving Baw Rai westwards 2 XII via Klawng Chantabun 3—4 XII and Makam 5 XII (9516—9554), visited Kao Salap 5 XII (9555—9565) and so to Chantabun 6—7 XII (9566—9574). From Chantabun 8 XII in northern directions via Ampo Makam 9—10 XII (9575—9600) to Tap Sai and Kao Soi Dao mountains (or Kao Nam Kio mountains; over 1400 m) $13^{\circ}N$ $102^{\circ}10'E$, 11—17 XII (9601—9693), continued via Ban Ta Mun 18—19 XII (9694—9714) and Ban Ta Ruang 19—21 XII (9715—9733), crossed the Klawng Pra Satung 22 XII in the region S of Sakeo 22—25 XII (9734—9768), where the Kao Sakan limestone hills were visited, arrived at Wattana (at present King Watana Nakhaun) $13^{\circ}40'N$ $102^{\circ}15'E$, 26 XII (9769—9780), there turned to the WNW along the railway to Sako $13^{\circ}45'N$ $102^{\circ}E$, 27—28 XII (9781—9792), there left the railway going NW via Krabin, Tungpo, Bupram (ascending the Korat plateau) 29 XII—4 I 1925 (9793—9841) to Bukanun 4—6 I (9842—9866), thence to Tachang and the nearby Kao Lem (1238 m) $14^{\circ}25'N$ $101^{\circ}30'E$, 7—15 I (9867—9989), left Tachang 16 I by road to Muak Lek, passing Kao Sisiat A (900 m) 16—18 I (9990—10,002), arriving at Muak Lek 19 I (10,003—10,009) and so by train back to Bangkok 20 I. One belated number from Tachang 17 I (10,010). After some numbers from Bangkok 27 I—1 II (10,011—10,013) another series of belated numbers of the foregoing tour (10,015—10,050).

Collecting at Bangkok 8 II—1 III (10,051—10,060).

Trip to Betong $5^{\circ}45'N$ $101^{\circ}02'E$, 11 III (10,061—10,085). Then several belated numbers from various places (10,086—10,089).

Collecting at Bangkok 5—20 XII (10,090—10,094).

Tour to Southwestern Siam: Rachaburi [7]. Left Bangkok 28 XII by train for Ban Pong, from there by car to Kanburi $14^{\circ}02'N$ $99^{\circ}33'E$ to follow the Me Klawng upstream 29 XII—4 I 1926 (10,095—10,143) to Sisawat $14^{\circ}40'N$ $98^{\circ}02'E$, 5—10 I (10,144—10,189), staying there and visiting the nearby hills N of that place 11—17 I (10,190—10,249), then crossing westwards via Baw Noi and Ta Kanum to the Kwe Noi river $14^{\circ}44'N$ $98^{\circ}38'E$, 18—20 I (10,250—10,278), following the river northwards through the region N of Ta Kanum to Wangka $15^{\circ}08'N$ $98^{\circ}30'E$, 21—24 I (10,279—10,300), then after a two days' stay paid a visit to Kao Ri Yai 20 km to the E, 25 I—10 II (10,301—10,489), then going back by Wangka to the S taking a route E of the Kwe Noi, through the region N of Ta Kanum $98^{\circ}40'E$, 11—18 II (10,490—10,530), reaching the Kwe Noi again at Ta Kanum 20 II (10,531—10,533) and going southwestwards down that river through the region of Sai Yok, being at $14^{\circ}22'N$ $98^{\circ}52'E$ on 21 II, at $14^{\circ}10'N$ $98^{\circ}04'E$ on 23 II, at $13^{\circ}56'N$ $99^{\circ}20'E$ on 26 II (10,534—10,566); back at Kanburi 28 II. Left Kanburi again 3 III up the Kwe Noi by boat for Ban Chorake Puak $13^{\circ}56'N$ $98^{\circ}22'E$; from here started collecting in a westerly direction to Ban Bawng Ti 5—10 III (10,567—10,599), paying a visit to the hill range of Kao Den near the Burmese frontier $14^{\circ}05'N$ $99^{\circ}E$, 9 III, then returned

to the SE 10—15 III (10,600—10,633), being at 13°56'N 99°16'E on 13 III (all these plants labelled 'Kanburi'), and at 13°41'N 99°27'E on 15 III, then turning E, via Chawn Bung to Ban Klui 13°36'N 99°50'E, 15—19 III (10,634—10,650), returning by train to Bangkok 19 III. Belated numbers follow (10,651—10,663).

Collecting at Bangkok and vicinity 31 III—27 IV (10,664—10,719).

Tour to Southwestern Siam: southern part of Rachaburi [8]. Left Bangkok 30 VI by train via Prachuap 11°48'N 99°48'E, 30 VI—1 VII (10,720—10,731) for Hui Yang 11°36'N 99°40'E, to stay there and to explore Kao Luang (1150 m) 9 km to the NW, 1—7 VII (10,732—10,889). Then by train northwards to Sam Roi Yawt 12°12'N 99°53'E, to explore the hill Kao Non Parawm 12 km to the WNW, 8 VII (10,890—10,907), the same day arriving at Nawng Kang 8 km N of Sam Roi Yawt, and collecting in the vicinity 8—10 VII (10,908—10,922), then turning E to the coast NE of Sam Roi Yawt 11—15 VII (10,923—10,989) and visiting the nearby island of Kaw Kuram; at Pran 12°22'N 99°56'E, 15 VII (10,990) the train was taken back to Bangkok 16 VII. Belated numbers follow (10,991—10,996).

Trip to Petchaburi (? = Phetburi 13°06'N 99°57'E) 23 VII (10,997—11,004); followed by another series of belated numbers of the foregoing tour (11,005—11,017).

Collecting at Bangkok and in the vicinity 27 VII—4 XI (11,018—11,057).

Trip to Petchaburi (? = Phetburi 13°06'N 99°57'E) 7—9 XI (11,058—11,094).

Collecting at Bangkok 14 XI—12 XII (11,095—11,105).

Tour to Peninsular Siam and Kaw Tao [9]. Left Bangkok by ship 25 XII for the isle of Kaw Tao 10°06'N 99°50'E, 27 XII—2 I 1927 (11,106—11,244), then to Bandawn (= Surat) 9°08'N 99°20'E, 5—6 I (11,245—11,308); then northwards by train to Bang Son 10°40'N 99°20'E, from there with elephants and carriers northeastwards to Ban Tung Maha on the coast 9—11 I (11,309—11,363), visiting the nearby islet of Kaw Wieng 11 I (11,364—11,383), and the mangroves on the mainland at Ban Pak Klawng near Ban Tung Maha 12 I (11,384—11,399), and from there going westwards via Ban Map Amarit to Ban Ta Ngaw 10°50'N 99°20'E, 13—21 I (11,400—11,593), meanwhile visiting the Kao Tong hills a few km to the N; then going southwards via Ban Kuring and Ta Se 22—23 I (11,594—11,627) to Chumpawn; after a while going W via Ta San to Pak Chan on the Burmese frontier 10°30'N 98°50'E, 24—28 I (11,628—11,682), then turning SE via Nam Chut, Ban Lam Lieng, Kao Talu, Na Sak, to Tako 10°06'N 99°06'E, 29 I—8 II (11,683—11,894), making rich collections over a short distance. From Tako first going S a few km, to Langsuan 9—11 II (11,895—11,926), then turning W via Pang Wan, Ban Trang, Ban Krays 13—19 II (11,927—12,013) to visit Kao Nom Sao (1100 m) 9°57'N 98°50'E, 20—22 II (12,014—12,093), then back to Ban Krays and southwards via Pato 23 II—4 III (12,094—12,214) to the river Klawng Nam Wong and following this to the E to Nawng Wai 9°33'N 99°10'E, 5—10 III (12,215—12,294), where the train was taken 10 III again to Surat. Left Surat in a SW direction, going by boats up the Pum Duang river, taking up collecting after a few km, at Takam, then proceeding via Ta Rong Chang, Ta Kanawn 13—17 III (12,295—12,360) to Panom 8°47'N 98°45'E, 18 III; from here a trip to Ban Sawng Pinawng some 20 km to the NW, 18—21 III

(12,361—12,410) and back; then leaving the river and going S, 23—25 III (12,411—12,423) to explore Kao Sataw and Kao Ken hills $8^{\circ}30'N$ $98^{\circ}50'E$, 26—27 III (12,424—12,449), then wandering in easterly directions via Plai Paya, Kao Meo, and along the Klawng Pan to Praseng 28—29 III (12,450—12,482), then via Pak Sai, Tung Luang, and Klawng Tan 30 III—1 IV (12,483—12,519) to Ban Sawng $8^{\circ}40'N$ $99^{\circ}27'E$, where on 2 IV the train northwards was taken to Bandawn (= Surat). From here the nearby isle of Kaw Prap was visited 5 IV (12,520—12,529) and the next day a boat was taken to the isle of Kaw Samui $9^{\circ}30'N$ $100^{\circ}E$, 6 IV (12,530); after an unsuccessful trip to the nearby smaller islet of Kaw Ngua Talam 7 IV (12,531—12,533), collecting was resumed at Kaw Samui 8—11 IV (12,534—12,651); then a second visit was paid to Kaw Tao $10^{\circ}06'N$ $99^{\circ}50'E$, 12—17 IV (12,652—12,823); left the isle 19 IV and back at Bangkok 21 IV.

Collecting at Bangkok 8 V (12,824—12,825).

Trip to Wang Kanai (near Kanburi, \pm 115 km W of Bangkok) 14—16 V (12,826—12,873); followed by a series of belated numbers, the first one from Bangkok 3 V (12,874), the other of the foregoing tour (12,875—12,945), followed by a trip to Paknam (not further localized) 19 VI (12,946—12,947), and by earlier collecting at Bangkok 5 V—16 VI (12,948—12,951).

Second tour to Peninsular Siam and Kaw Tao [10]. Left Bangkok 16 VII for a third visit to Kaw Tao $10^{\circ}06'N$ $99^{\circ}50'E$, 19—26 VII (12,952—13,027), from there a second visit to Kaw Prap 28 VII (13,028—13,031), and landed again at Bandawn (= Surat) 30 VII (13,032—13,033), where a boat was taken to Kanchanadit $9^{\circ}10'N$ $99^{\circ}28'E$, 31 VII—1 VIII (13,034—12,112); an exploration to the S was made via Ban Tong Tao and Ban Kawp Kep 2—8 VIII (13,113—13,126) to Kao Nawng (1200 m) $8^{\circ}50'N$ $99^{\circ}30'E$, 8—11 VIII (13,127—13,297), followed by collecting at Ban Kawp Kep and Ban Na San (belated collections are included here) 11—16 VIII (13,298—13,377), leaving 17 VIII to be back at Bangkok on the same day. Belated numbers follow (13,378—13,413).

Collecting at Bangkok 17—26 IX (13,414—13,416).

Trip to Hua Hin 4—9 XI (13,417—13,522).

Collecting at Bangkok 14 X—27 XI (13,523—13,528).

Three tours in Peninsular Siam, southern part. — Tour I [11]. Left Bangkok by train 21 XII for Hat Yai $7^{\circ}N$ $100^{\circ}30'E$, then went 40 km to the SSW to Padang Besar on the Malayan frontier, and back 22—26 XII (13,529—13,668). Then by train and motorcar to Satul $6^{\circ}38'N$ $100^{\circ}06'E$, 27—28 XII (13,669—13,750) and from there in northwestern directions via Kuan Po, Ban Udai, Tola Tai 29 XII—3 I 1928 (13,751—13,869) to Tung Wa $7^{\circ}02'N$ $99^{\circ}45'E$, exploring in southerly directions 4—7 I (13,870—13,924) to La-ngu 7—9 I (13,925—13,961). Then a trip to the Bahong or Butang islands near the Langkawi-group $6^{\circ}35'N$ \pm $99^{\circ}15'E$, visiting Adang I. 10—13 I (13,962—14,034), Rawi I. 13 I (14,035—14,037), Butong I. 13 I (14,038—14,063), again Adang I. 14—17 I (14,064—14,154), also Pulau Besi 17 I (14,155) and an islet off P. Tengah 17 I (14,156—14,158), then after a visit to Terutao I. $6^{\circ}35'N$ $99^{\circ}40'E$, 18—20 I (14,159—14,229) and to the isle of Kaw Kui 21 I (14,230—14,231) back to Satul 22—26 I (14,232—14,267), which was left by car for Kuan Mieng $7^{\circ}12'N$ $100^{\circ}20'E$, 27 I (14,268—14,270); there the train was taken to the N, visiting Ta Samet

7°57'N 100°E and the padang vegetations along the railroad 27—29 I (14,271—14,338), then going to nearby (?) hill Kao Chum Tawng 30 I (14,339—14,349), where the train was taken back to Bangkok 31 I.

Collecting at Bangkok 4—9 II, and belated numbers filled in from Bangkok (14,350—14,358) and from the foregoing tour (14,359—14,384); then again one Bangkok number 4 III (14,385).

Three tours in Peninsular Siam, southern part. — Tour II [12]. Left Bangkok by train 7 III for Kuang Nieng 7°12'N 100°20'E, 8 III (14,386—14,388), then to Tapan Lek 6°40'N 100°10'E to stay there and explore the vicinity to the NE at Ban Nam Rawn, Ban Ton, Klawng Ton, Kao Keo range, Tung Mui 8—19 III (14,389—14,660); then back to Kuan Mieng 19 III (14,661—14,662), where the train was taken to the SE for Tapa 6°50'N 100°57'E. From here an approximately circular route was described round an area some 25 km in diameter S of Tapa, via Wang Yai, Saba Yoi, Ban Pien, Ban Sai Kao, Kao Kalakiri (2nd visit, cf. IX 1923) to Kokpo on the railway line 20 km S of Tapa 21 III—5 IV (14,663—15,078). From Kokpo by train to Songkla 7—8 IV (15,079—15,121) and after collecting at Lem Son 9—11 IV (15,122—15,137) on the small peninsula N of Songkla at the entrance of the big inland sea which stretches inside the coastline, a boat was taken across this sea, visiting a group of limestone islets named Kaw Si Kaw Ha 7°24'N 100°20'E, 12 IV (15,138—15,150), arriving the same day at Lam Pam near Patalung; here going westwards to ascend Kao Sung (1100 m) 7°30'N 99°55'E and to explore the vicinity at Chawng, Klawng Hin Kao, Ban Kram, Ban Na, Kao Den, Na Wong 13—20 IV (15,151—15,330), then back to Patalung and after collecting at Kao Oktalu 21 IV (15,331—15,362) took the train northwards to Ronbipun, from where an exploration was made in a NNW direction via Sao Teng, Ban Tasan, Ban Tawn, Lan Saka, Wang Sai, Wat Kiriwong 23—27 IV (15,363—15,401) to Kao Luang (1786 m) 8°30'N 99°40'E, 27 IV—2 V (15,402—15,576); then going via Wat Kiriwong, Ta Yai 2—4 V (15,577—15,604) eastwards to Nakawn Sritammarat and collecting there 5 V (15,605—15,608) before going northwards to Pak Ying, Ta Sala on the coast, and Rong Lek 25 km to the NW, 7—8 V (15,609—15,622), there turning NE towards the coast, via Ban Natawn, Ban Phep, Sao Pao to Sichon 9°N 99°55'E, 8—12 V (15,623—15,693), where on 14 V a ship was boarded; from the same date there is a series of numbers labelled "Ban Bua Put — K. Samui" (15,694—15,728)²⁵; back at Bangkok 16 V. Belated numbers follow (15,729—15,789).

One belated number from Bangkok 1 XII 1927 (15,790).

Collecting at Bangkok III—24 VI (15,791—15,797).

Three tours in Peninsular Siam, southern part. — Tour III [13]. Left Bangkok 11 VII by train for Chana, from there going S via Natawi 13—16 VII (15,798—15,814) to explore the country at 6°34'N 100°40'E at Ban Prakawp, Ban Wangsai, Klawng Semawng, Klawng Pi, and then moving slightly westwards via Klawng Yai 17—22 VII (15,815—15,887) to Sadao 22—23 VII (15,888—15,890), from there by car and train to Kuan Nieng to explore the nearby hill Kao Chang Low 24 VII (15,891—15,903), then

²⁵) No visit to Kaw Samui 9°30'N 100°E is mentioned from this period by the printed record. It is possible that the actual collecting was done by Nai Put, one of Kerr's collaborators.

a few km SW to Kampengpet (apparently a second place of that name) 25 VII (15,904—15,917), from where a trip was made to Kao Keo (730 m) 7°N 100°15'E, 25—28 VII (15,920—15,971), back to Kampengpet 28—30 VII (15,972—15,990), and via Kuang Nieng back by train to Bangkok 31 VII. Belated numbers follow (15,991—16,006).

Collecting at Bangkok (partly belated) 8 VII—12 VIII (16,007—16,009).

Trip to Kaw Tao 10°06'N 99°50'E, 17—26 IX (16,010—16,092).

Collecting at Bangkok (partly belated) 8 VII—7 X (16,093—16,098).

Excursion to Tachin 21—23 X (16,099—16,108).

Collecting at Bangkok (belated) 17—19 X (16,109—16,113).

Excursion to Paknam (S of Bangkok by the sea) 5 XI (16,114—16,116).

Trip to Hua Hin (accompanied by Put) and nearby Kao Tao 9—11 XI (16,117—16,214).

Collecting at Bangkok (partly belated) 29 X—18 XII (16,215—16,223).

Tour to the West coast of Peninsular Siam [14]. Left Bangkok 19 XII by train for Chumpawn, to traverse the isthmus in a western direction via Siep Yuan, Tasan, Klawng Wa 20—24 XII (16,224—16,335) as far as Kraburi on the Burmese frontier 24—26 XII (16,336—16,380), then turning S via Lamlieng to La-un 27 XII—1 I 1929 (16,381—16,492), there going SW to Ranawng 2—7 I (16,493—16,550), to make a trip to the isle of Kaw Chang (or Saddle I. on British Admiralty charts; not to be confused with Kaw Chang in the Gulf of Siam) 9°50'N 98°26'E, 7—12 I (16,551—16,627) and to the nearby Kaw Payam southwestwards 12—13 I (16,628—16,646) and to Kaw Bangben more southeastwards near the mainland 13—15 I (16,647—16,674), landing on the mainland at Kapor 9°37'N 98°37'E and exploring the area N of this place to a distance of 12 km at Nak Nang and on Kao Pawta Chondong (900 m) 15—24 I (16,675—16,842). Then taking a boat from Kapor, southwards up the estuary to Ban Naka 20—26 I (16,843—16,850) and from there the coast was roughly followed southwards over a considerable distance, first passing Ban Kampuam and from there eastwards, via Klawng Kampuam 27—30 I (16,851—16,892) to visit Kao Pawta Lung Keo (1200 m) 9°20'N 98°30'E, 30 I—3 II (16,893—17,000), going back by the same way to Ban Kampuam 4—6 II (17,001—17,029), there resumed the southward course via Raichawng, Nangyawn, Bangwan 6—12 II (17,030—17,097) to Takuapa 15—16 II (17,098—17,108), proceeding to Kapong 8°40'N 98°27'E, where the hills were explored 17—18 II (17,109—17,141), and further southwards a few km to Bangto where the same was done on Kao Bangto (980 m) 19—24 II (17,142—17,234); then again S via Nop Pring, the hills Kao Toi Pang-Nga and Kao Pang-Nga towards the sea 25—28 II (17,235—17,280). Then a trip to some islands in the bay about 8°N 98°30'E, first to Kao Taknam on Kaw Kien 1 III (17,281—17,290), where some prehistoric rock-drawings were noticed, then to Kaw Yao Yai 2—3 III (17,291—17,312), Kaw Kalat 3 III (17,313—17,325) and back to Kaw Yao Yai 3—6 III (17,326—17,358), then via Kaw Naka 7 III (17,359—17,373) to Puket²⁶), which was explored at Yama, Lem La, Muang Mai, Surin, Kamala, Bang Tao, Talang, Katu 7—12 III (17,374—

²⁶) Kerr in his report wrote that the island of Puket is known under several names, notably Chalang, Salang, Ujang Salang, Jusalan, Junkceylon, Young Ceylon.

17,473), then by ship to Krabi on the mainland 13 III (17,474—17,481) and to Kantang $8^{\circ}20'N$ $99^{\circ}30'E$, 14—15 III (17,482—17,493), where the train was taken back to Bangkok 16 III. Belated numbers follow (17,494—17,569).

Collecting at Bangkok till 9 XII (17,570—17,583).

Tour to Southeastern Siam [15]. Left Bangkok by ship 16 XII, to anchor at the mouth of the Krat or Chantabun river $12^{\circ}15'N$ $102^{\circ}35'E$, 17 XII (17,584—17,587), proceeding upstream to Hui Reng, then going NE to Dan Chumpon 18—20 XII (17,588—17,652) and there turning S to explore Kao Kuap or Panom Tom and other hills near the Cambodian frontier $\pm 12^{\circ}20'N$ $102^{\circ}45'E$, 21—28 XII (17,653—17,849), then turning SW via Ban Ta Kum to Krat (= Trat), thus completing an approximate ellipse, 28—30 XII (17,850—17,876); going up the river again but now taking the Klawng Son to the NW via Kao Saming to Klung $12^{\circ}25'N$ $102^{\circ}14'E$, 31 XII—3 I 1930 (17,877—17,947), where the mangrove was visited 4 I (17,948—17,954); then proceeding for Kao Sabap (750 m) 12 km to the NNW, 5—9 I (17,955—18,043) and so to Chantaburi or Chantabun, from where a visit was made to the hill Kao Ploi Wen 8 km to the WSW, 10—11 I (18,044—18,062); Chantabun was left by ship 12 I, back at Bangkok 13 I. A series of belated numbers follow (18,063—18,095).

Collecting at Bangkok 23 I—8 II (18,096—18,099).

Tour to the Southwest coast of Peninsular Siam [16]. Left Bangkok 16 II by train for Ban Na $8^{\circ}53'N$ $99^{\circ}18'E$, which was left in western directions via Kiensa and Ban Krut 17—20 II (18,100—18,168) to explore the region of Yan Yao some 40 km distant 21—25 II (18,169—18,257), then going SW via Kao Wong and King Panom (2nd visit) 25 II—2 III (18,258—18,344) to Tap Put $8^{\circ}30'N$ $98^{\circ}38'E$ for an exploration of the area immediately W of this place at Nop Pring and on Kao Kata Kwam (1055 m) 3—13 III (18,345—18,554), then going SE passing Ao Luk, Nawng Chik, Kao Tawng, Nawng Le to Krabi $8^{\circ}04'N$ $98^{\circ}55'E$, 14—20 III (18,555—18,640). Left Krabi to explore the area stretching to 20 km N of this place at Sai Po, Tambon Kao Panom, and on Kao Bencha (1315 m) 22 III—2 IV (18,641—18,837), back to Krabi 3—4 IV (18,838—18,852), followed by a visit to some nearby islets, first to Kaw Lanta $7^{\circ}32'N$ $99^{\circ}05'E$, 6—7 IV (18,853—18,873), then to the Kaw Pipi islands, of which the larger one is Kaw Pipi Dawn $7^{\circ}48'N$ $98^{\circ}47'E$ and the smaller Kaw Pipi Le, S off the former, both being visited 8—11 IV (18,874—18,939), then to Kaw Pu more to the coast 12—14 IV (18,940—18,972) and again to Kaw Lanta 15 IV (18,973—19,000). Then back to the mainland at Si Kao and southwards to Bangsak 16—20 IV (19,001—19,050), and further S to the islet of Kaw Libong $7^{\circ}15'N$ $99^{\circ}24'E$, 20—24 IV (19,051—19,092), from there eastwards to Yong Sta on the mainland and northeastwards via Ban Palien, Kao Soi Dao (850 m) $7^{\circ}20'N$ $99^{\circ}54'E$, Ban Sak and Kao Hua Tek to Patalung on the railroad 25 IV—2 V (19,093—19,297), where the train was taken back to Bangkok 2 V.

Trip to Aran Pratet (= Aranya Prathet) $13^{\circ}40'N$ $102^{\circ}25'E$, 11—13 V (19,298—19,338).

Belated numbers follow of the foregoing tour (19,339—19,456).

Collecting at Bangkok (partly belated) 9 II—1 VI (19,457—19,465). One number was sent from Chonburi VII (19,466).

Trip to Kanburi: Ta Salao and Kao Toh (approx. 115 km W of Bangkok; not further localized) 9—13 VII (19,467—19,551).

Trip to Lopburi and Bang-pa-in 14°48'N 100°35'E, 3 VIII (19,551 A—19,557).

Belated numbers follow, one from Bangkok VI (19,558), others from the Kanburi trip (19,559—19,562), and one more from Bangkok 23 VI (19,563).

Trip to Aran Pratet (cf. 11 V) 8—10 VIII (19,564—19,626).

Trip to Kanburi: Kao Tawng 31 VIII (19,627—19,658).

Trip to Chainat; collecting at Kao Tamamum, Manosom, Utapao, Makam Tao and Dom Bang approx. 15°20'N 100°20'E, 18—21 IX (19,659—19,705).

Trip to Ayuthia prov.: Sena, 70 km N of Bangkok 23 IX (19,706—19,712).

An intricate series of belated numbers follow: from Chainat (19,713), from Aran Pratet (19,714), from the 2nd trip to Kanburi (19,715), from Bangkok 16 VIII—28 IX (19,716—19,728), from the 1st trip to Kanburi (19,729—19,730), and again from Bangkok 4 VII—6 X (19,731—19,755).

Trip to Kanburi and Kao Tawng (cf. 31 VIII) 19 X (19,756—19,779).

Trip to Krabin: Ban Keng and Kao Singto (in Southeastern Siam, not further localized) 7—11 XI (19,780—19,864).

Collecting at Bangkok (partly belated) 21 X—23 XI (19,865—19,785).

Trip to Kanburi: Praten 14 XII (19,786—19,889).

Two numbers from Ayuthia 21 XII (19,890—19,891), and two cultivated numbers originally from elsewhere 6 XI—24 XII (19,892—19,893).

Tour to Central Eastern Siam [17]. Left Bangkok by train 19 I 1931 for Sikiu 14°55'N 101°43'E to go from there in northern directions via Dan Kuntot to Chaturat 15°30'N 101°45'E, 20—26 I (19,894—19,944) and further northwards via Chaiyapum and Chawng Sam Maw to Pak Pang (= Pu Kio) 16°10'N 101°50'E, 27 I—2 II (19,945—19,984), then proceeding to the NW via the hill Pu Wieng, Sitan 16°25'N 102°E to revisit Kao Krading (1200 m) 16°50'N 101°40'E, 3—13 II (19,985—20,150), back to Sitan and Pu Wieng 15—17 II (20,151—20,167) and returning via Kawn San, Ban Pao, King Ban Yang 17—22 II (20,168—20,196) to explore Pu Kio (1080 m) near Pak Pang 22—25 II (20,197—20,273); along the Hui Prom river back to King Ban Yang and there turning W, via Nawng Bua Deng, Kao Phya Paw 25 II—4 III (20,274—20,339), where the border was crossed between the provinces Chaiyapum and Petchabun at about 16°10'N 101°18'E, then via Ta Duang, Wang Tadi, Baw Tai, Kamuat where the Menam Pasak (or Me Sak) was crossed at 16°10'N 101°E, 4—6 III (20,340—20,379), from Kamuat proceeding westwards via Nayom, Chondaen 7—9 III (20,380—20,401), from there W to Tapan Hin on the railroad, where the train was taken back to Bangkok 11 III. Belated numbers follow (20,402—20,437), and two numbers from Kanburi 6 IV (20,438—20,439).

Second trip to Paknam (S of Bangkok by the sea; cf. 5 XI 1928) 26 IV (20,440—20,446).

Trip to Korat and vicinity. Collecting at Pak Chawng and Ta Chang near Korat 14—16 V (20,447—20,474), Bua Yai 40 km NE of Korat 17 V (20,475—20,476), Pon²¹⁾ 15°35'N 102°35'E, 17 V (20,477—20,479) and Ban

²¹⁾ It is not clear what sort of trip this was. Pon (= Muang Phon) is marked on the counterfoils of the labels 'Kawn Ken' (= Khaun Kaen), the name of the province N of Korat, but on this occasion Kerr did not come within 40 km from the town of Khaun Kaen.

Pai 16°05'N 102°42'E, 18 V (20,480—20,483); back at Bua Yai 19 V (20,484—20,488), where the trip ended.

One collection from Bangkok (belated; apparently cultivated from Hui Yan, Prachuap) 19 IV (20,489).

Trip to Kanburi 31 V (20,494—20,501).

Trip to Prachuap in Peninsular Siam. Collecting at Pak Tawan 29 VII—2 VIII (20,502—20,545).

Collecting at Bangkok (partly belated) 25 VI—4 VIII (20,546—20,548); followed by one belated number from Pak Tawan (20,549); then one from Bangkok again 23 VIII (20,550).

Trip to Kanburi 13 IX (20,551—20,562).

Collecting at Bangkok (partly belated) 15 VII—1 XI (20,563—20,577).

Trip to Petchaburi (? = Phetburi; cf. 7 XI 1926) 13°06'N 99°57'E, collecting at Tung Luang 8—11 XI (20,578—20,643).

Collecting at Bangkok (some of the plants cultivated from elsewhere) 21 X—21 II 1932 (20,644—20,650).

Tour to Laos [18, 19]. By train to Bua Yai near Korat, and by bus to Kawnken (= Khaun Kaen) 15 III (20,651—20,653) to revisit the hill of Pu Wieng 75 km to the W 16°25'N 102°E, 16—18 III (20,654—20,686); back to Kawnken 18—19 III (20,687—20,688) and by car to Nawngkai on the Mekong 17°50'N 102°45'E, 22 III (20,689—20,690), there crossing the river to Laos territory. After a visit to Wiengchan²⁸ (= Vientiane) 22—23 III (20,691—20,693) by boat down the Mekong, collecting on the way via Chaiyaburi (= Sanyabouri, Saiburi; on the Siamese side) to Paksane (= Pak San) 18°22'N 103°35'E, 20—26 III (20,694—20,746), then after crossing the Nan Sane going in northern directions via Borikhane (= Borikan) 26—28 III (20,747—20,788) and the region of Muang Huang (= M. Huang) 18°44'N 103°40'E, 29—31 III (20,789—20,821) to Tatom (= Tha Thom) 19°N 103°33'E, 1—4 IV (20,822—20,894), taking western directions via Tawiang (= Ta Viang), Muang Awn (= M. Om), Muang Cha 4—11 IV (20,895—21,005) to visit the mountain Pu Bia (= Pou Bia; 2880 m) 19°N 103°10'E, 12—15 IV (21,006—21,081), then back to Muang Cha and going SE, climbing Pu Muten (1730 m) 19—20 IV (21,082—21,170), continuing via Hui Muang Ao, on 21 IV following a ridge above about 1200 m, via Pu Hua Sua, Pu Tat, and Pak Munung with a visit to Pu Lawek (over 1420 m) 18°46'N 103°14'E, 20—25 IV (21,171—21,248), proceeding to the SE via Nam Yak, Muang Baw, Hat Kam 25—29 IV (21,249—21,298), back to Borikhane (= Borikan) and Chaiyaburi (= Sanyabouri, Saiburi) 29 IV—2 V (21,299—21,339) where a boat was taken further down the Mekong, keeping mostly the Siamese side, via Pak Kading (= Pak Ca Dinh) 18°18'N 103°58'E, 3—5 V (21,340—21,347), Paknam Song Kram (= Pak Nam Song Gram) 17°07'N 104°54'E, 6—7 V (21,348—21,366), Ta Uten (= Houthene) and Nakawn Panom 17°22'N 104°45'E, 8—10 V (21,367—21,394), to Tat Panom and Mukdahan where also the low hill Pu Mano was visited 16°30'N 104°20'E,

²⁸ The names in brackets represent, as for this tour, the French alternative spellings given by Kerr himself in his record of this tour, *J. Siam Soc., Nat. Hist. Suppl.* 9 (1933) 223.

10—14 IV (21,395—21,459); then continued via Dawn Tan 15 V (21,460—21,468) where the hill Pu Wat was visited; via Chanuman to Kemarat 16°01'N 105°05'E, 18—19 V; here the river-journey ended; a bus was taken westwards to Warin while a forest was visited on the way, before the train was taken back to Bangkok ²⁹).

Tour in Peninsular Siam, from Prachuap to Mergui [18, 20]. By train to Prachuap 27 V, then in western directions via Nawng Kam, Tung Matum where the Burmese frontier was crossed at a pass about 240 m high 28 V, camp at Hui Chin; then via Menam Wat, Nawng Bua (=Jelinga), Tung Muang, crossed the Klawng Singkawn at Ta Pe 30 V, followed up the Klawng Intanin to cross the pass Den Noi 31 V, then staying at Ban Hui Sai Kao 11°48'N 99°15'E, which was left 2 VI to keep a northwestern direction down the Klawng Sing Kawn by boat, to reach Tenasserim 12°06'N 99°01'E 5 VI, and further to Mergui 6 VI. From Mergui by steamer to Rangoon, arrived there 8 VI but stayed on board, left 9 VI for Penang, arrived there 12 VI. After a stay at Penang went to Pulau Langkawi 6°20'N 99°40'E, 16 VI, collected there, left 21 VI, back at Penang 22 VI, from there sailed for Europe 23 VI.

KERR'S LIST OF GEOGRAPHIC NAMES

This list is a key to place the geographic names which occur in Kerr's collections from Siam into the province where they belong. The subdivision of Siam as adopted here is the same as the one which is to be found, together with a map, in vol. I of the *Florae Siamensis Enumeratio*. It is now somewhat antiquated in two ways. First, instead of the former 18 provinces there are now 14. Second, a new system, based on the administrative subdivision but simpler and more satisfactory from a plant-geographical point of view, has been proposed by Smitinand, *Thai Forest Bulletin*, Bot. no. 4 (1958) 2—6, with a map, adopted by Kern, *Reinwardtia* 6 (1961) 26, 28.

The present list was prepared by Kerr himself, and kindly put at my disposal by Dr. Euphemia C. Barnett, the present editor of the *Florae Siamensis Enumeratio*. Kerr's orthography has been retained throughout. The list has been simplified ³⁰) in this way, that the names of the provinces have been replaced by numbers, the same numbers as are used on the sketch-map in the *Florae Siamensis Enumeratio*, and which are once again explained below, together with Smitinand's subdivision into seven regions. The abbreviating letters of these regions are also given to each geographic name, so that e.g. "Klawng Yai: P 17" means that this river is in the province of Nakawn Sritamarat, in Peninsular Siam.

²⁹) Unfortunately, the field-books after number 21,468 are missing. The data regarding the next trip to Mergui, which was the last one made by Kerr before he left Siam for good, have been taken from his paper in *J. Siam Soc.* 26 (1933) 203—214.

The data after Mergui have been taken from his diary. The highest number I have come across was 21,741, collected 20 VI.

³⁰) Copies of the complete list are at Aberdeen, Edinburgh (?), Kew, and Leiden.

Numbers of the Florae Siamensis Enumeratio	Region in the sense of Smitinand
1. Pâyap	
2. Maharât	
3. Nakawn Sawan	Northern (N)
4. Pitsanulók	
5. Udawn	
6. Roi Et (northern half)	Northeastern (NE)
6. Roi Et (southern half)	
7. Ubon	Eastern (E)
8. Râchasiamá	
9. Chantaburi	
10. Prâchinburi	Southeastern (SE)
11. Ayuthia	
12. Krungtêp	Central (C)
13. Nakawn Chaisi	
14. Râchaburi	
15. Surât (N. of Lat. 10°)	Southwestern (SW)
15. Surât (S. of Lat. 10°)	
16. Pûket	
17. Nakawn Sritamarât	Peninsular (P)
18. Pattâni	

Anghin: SE 10 — Angtawng: C 11 — Ang Tawng (Prachuap): SW 14 — Ao Kao Kom (Tungsong): P 17 — Ao Kasû (Sriracha): SE 10 — Ao Kong Kang (Kaw Chang): SE 9 — Ao Lûk (Krabi): P 16 — Ao Tong (Trang): P 16 — Ao Wang Kram (Tung Song): P 17 — Aran Pratet: SE 10 — Aranya = Aran Pratet — Aw Katung: SW 14 — Ayer Hangah (Langkawi): P 16.

Bachaw: P 18 — Ban Ai (Nan): N 2 — Ban Bua Put (Kaw Samui): P 15 — Ban Cha Am: SW 14 — Ban Chabaw (Tomo): P 18 — Ban Chan (Chiengmai): N 1 — Ban Chum Sêng (Korat): E 8 — Ban Dan (Kaw Chang): SE 9 — Ban Dan (Sriracha): SE 10 — Ban Dan Kao (Kaw Chang): SE 9 — Ban Dawn: P 15 — Ban Den (Paknampo): N 3 — Ban Din So (Kanburi): SW 14 — Ban Djan (Chiengmai): N 1 — Ban Doi Hang (Chiengrai): N 1 — Ban Dong: N 1 — Ban Hui Pa (Mê Hawng Sawng): N 1 — Ban Hui Sai (Nan): N 2 — Ban Hui Sak (near Chiengrai): N 1 — Ban Hu Kawng: N 3 — Ban Ka Kam (Lampang): N 2 — Ban Kalubi (Tomo): P 18 — Ban Kao: N 3 — Ban Kao Kam (Chiengkam): N 1 — Ban Kaw (Me Ping rapids): N 1 — Ban Kawng Hê: N 1 — Ban Kawp Kep: P 16 — Ban Kaw Rakiet (Kampêngpet): N 3 — Ban Kaw Tan (Supan): C 13 — Ban Kêng (Krabi): SE 10 — Ban Kia (Tomo): P 18 — Ban Klawng Pong (Kampêngpet): N 3 — Ban Kop: P 17 — Ban Kram (Patalung): P 17 — Ban Krap (Kopah): P 16 — Ban Krayê (Langsuan): P 15 — Ban Krut (Prachuap): SW 14 — Ban Krut: P 15 — Ban Kun Awn: N 1 — Ban Mamong (Tomo): P 18 — Ban Map Amarit (Chumpawn): SW 15 — Ban Mê Chang: N 2 — Ban Mê Ka (Chiengmai): N 1 — Ban Mê Ta: N 1 — Ban Mê Wang: N 1 — Ban Múang Lûk (Chiengrai): N 1 — Ban Na: N 3 — Ban Na: P 15 — Ban Nam Pi: N 4 — Ban Nasan: P 15 — Ban Natan (Prê):

N 2 — Ban Natawn: P 17 — Ban Nawng Bua (Saraburi): C 11 — Ban Nawng Kang (Prachuap): SW 14 — Ban Ngiu Tao (Chiengmai): N 1 — Ban Noi (Petchaburi): SW 14 — Ban Pak Klawng (Chumpawn): SW 15 — Ban Pa Kui (Nan): N 2 — Ban Pa Lai (Kanburi): SW 14 — Ban Pa Prêk (Tungsong): P 17 — Ban Pari (Tomo): P 18 — Ban Pa Sak: N 1 — Ban Pa Yang (Raheng): N 3 — Ban Pao: N 1 — Ban Pe (Rayawng): SE 9 — Ban Pêng Kaw (Mûang Fang): N 1 — Ban Pien (Songkla): P 17 — Ban Pin (Lampang): N 2 — Ban Plien: P 17 — Ban Pong (Chiengmai): N 1 — Ban Pong: SW 14 — Ban Pong Yêng: N 1 — Ban Prakawp (Songkla): P 17 — Ban Sai Kao: P 18 — Ban Salu: N 1 — Ban Samông (Me Ping rapids): N 1 — Ban San Pa Sak: N 1 — Ban Su (Prê): N 2 — Ban Ta Do (Trang): P 16 — Ban Ta Dûa (Mûang Hawt): N 1 — Ban Ta Kam (Lampang): N 2 — Ban Ta Kaw: N 1 — Ban Takilek: N 1 — Ban Takli: N 3 — Ban Tak (Rahêng): N 3 — Ban Tam (Doi Chiengdao): N 1 — Ban Tam Ta Kaw (Mê Lao, Mê Kok): N 1 — Ban Tang Chai (Lampang): N 2 — Ban Tap Dûa: N 1 — Ban Tin (Nan): N 2 — Ban Tiu (Nan): N 2 — Ban Ton (Satul): P 16 — Ban Ton (Lampang): N 2 — Ban Tong Tao: P? 15 — Ban Tong Pawng (Chiengkawng): N 1 — Ban Tung Maha (Chumpawn): SW 15 — Ban Wang Luang: N 3 — Ban Wang Yang (Kampêngpet): N 3 — Ban Yang: N 4 — Ban Yûn (Nan): N 2 — Banang Sta: P 18 — Bandawn = Surat: P 15 — Bang Bawn (Tonburi): C 12 — Bang Kêo: P 17 — Bangkok: C 12 — Bangpa-in: C 11 — Bangplasoi: SE 10 — Bangsak (Trang): P 16 — Bang Son (Chumpawn): SW 15 — Bang Tabun (Petchaburi): SW 14 — Bang Talu (Petchaburi): SW 14 — Bangtapan: SW 14 — Bangtapan Noi: SW 14 — Bangto (Pang-nga): P 16 — Bang Tôi (Pang-nga): P 16 — Bangwan (Takuapa): P 16 — Batu Bunga (Satul): P 16 — Baw Fai (Petchaburi): SW 14 — Baw Luang (Chiengmai): N 1 — Baw Noi (Kanburi): SW 14 — Bawngto (Kanburi): SW 14 — Baw Rai (Krat): SE 9 — Baw Rê (Kanburi): SW 14 — Betong: P 18 — Biserat (Yala): P 18 — Bua Yai (Korat): E 8 — Bukanun (Korat): E 8 — Bukit: P 18 — Bukit Penarah (Langkawi): P 16 — Bukit Rajah Wang (Satul): P 16 — Bukit Selat Panchor (Langkawi): P 16 — Bukit Tapang (Yala): P 18 — Bung: E 7 — Bunyûn (Nan): N 2 — Bupram (Krabin): SE 10 — Buraui (Langkawi): P 16 — Buriram: E 8.

Campong Kankian (Ratburi): SW 14 — Caulay (Petchaburi): SW 14 — Cha Am: SW 14 — Chaibadan: C 11 — Chainat: N 3 — Chaiyaburi = Sayaburi: NE 5 — Chaiyapum: E 8 — Chak Kaw (Sriracha): SE 10 — Chak Yai (Sriracha): SE 10 — Chantabun: SE 9 — Chantuk (Korat): E 8 — Chanuman: E 7 — Chawm Bûng (Ratburi): SW 14 — Chawm Tawng: N 1 — Chawn Lêm (Trang, Kao Kao): P 16 — Chawng (Patalung): P 17 — Chawng Kê: N 3 — Chawng Tako (Nang Rawng): SW 14 — Chawng (Trang): P 16 — Chê Hom: N 1 — Chê Hom (Lampang): N 2 — Chê Sawm (Lampang): N 2 — Chiengdao: N 1 — Chiengkam: N 1 — Chiengkan (Lôi): NE 5 — Chiengkawng: N 1 — Chiengmai: N 1 — Chiengrai: N 1 — Chiengsên: N 1 — Cholai (Petchaburi): SW 14 — Chon Dên (Petchabun): N 4 — Chong = Chawng: P 17 — Choraka Sam Pan (Supan): C 13 — Chumpawn: SW 15.

Dan Chumpon (Krat): SE 9 — Dan Kun Tot: E 8 — Dan Sai (Lôi): NE 5 — Dayang Bunting (Langkawi): P 16 — Delisle I. (off. Takuapa):

P 16 — Den Chai (Prê): N 2 — Doi Angka: N 1 — Doi Angka Noi: N 1 — Doi Chiengdao: N 1 — Doi Din Deng: N 2 — Doi Hang (Chiengrai): N 1 — Doi Intanon = Doi Angka: N 1 — Doi Ka (Chiengmai): N 1 — Doi Ka Kia (Lampun): N 1 — Doi Kam (Chiengmai): N 1 — Doi Kiu Lom (Mûang Pai): N 1 — Doi Kiu Satai (Mûang Fang): N 1 — Doi Kun Tan (Lampun): N 1 — Doi Liem (Chiengmai): N 1 — Doi Luang (Lampang): N 2 — Doi Muan Chang Sa (Mûang Chêm): N 1 — Doi Nang Ka (Chiengmai): N 1 — Doi Nang Kêo: N 1 — Doi Nago: N 1 — Doi Noi: N 1 — Doi Pahom Pok: N 1 — Doi Pa Kao: N 1 — Doi Pa Mawn (Doi Angka): N 1 — Doi Pa Ngua (Nan): N 2 — Doi Pêpô (Mê Hawng Sawn): N 1 — Doi Pu Ka (Nan): N 2 — Doi Saken (Chiengrai): N 1 — Doi Saket: N 1 — Doi Sutep: N 1 — Doi Tam (Chiengmai): N 1 — Doi Tam Ma Kêng (Mê Hawng Sawn): N 1 — Doi Tam Tup (Chiengrai): N 1 — Doi Tam Tu Pu (Chiengrai): N 1 — Doi Tam Yup (Chiengrai): N 1 — Doi Tat (Chiengkawng): N 1 — Doi Tiu (Nan): N 2 — Doi Tung Cha (Rahêng): N 3 — Doi Wao (Nan): N 2 — Doi Yao (Mûang Pai): N 1 — Doi Yao (Nan): N 2 — Dôm Bang (Supan): C 13 — Dong Paya Yen (Chai-badan): C 11 — Dong Rêk: E 7.

Fa Man: N 1 — Fa Pin (Me Ping rapids): N 3 — Fang Deng (Sriracha): SE 10 — Fong Fang (Bangtapan): SW 14.

Gunong Chinchang (Langkawi): P 16 — Gunong Ina (Betong): P 18 — Gunong Raya (Langkawi): P 16.

Hang Sat (Lampang): N 2 — Hat Sanuk: SW 14 — Hat Yai: P 17 — Hat Yuak (Me Ping rapids): N 1 — Hin Dat (Kanburi): SW 14 — Hin Lap (Saraburi): C 11 — Hua Hin (Prachuap): SW 14 — Hua Hin Chuang (Prachuap): SW 14 — Hugap: P 16 — Hui Chê (Prê): N 2 — Hui Yat Yuak (Me Ping rapids): N 1 — Hui Hi (Lampang): N 2 — Hui Hom Sên (Rahêng): N 3 — Hui Kami (Prê): N 2 — Hui Kan (Prê): N 2 — Hui Kia: N 2 — Hui Kua (Nan): N 2 — Hui Lôm (Prê): N 2 — Hui Man Dan (Dan Sai): NE 5 — Hui Mê Kami (Prê): N 2 — Hui Mê Na (Mûang Pai): N 1 — Hui Mê Ta (Lampang): N 2 — Hui Mê Tan (Lampang): N 2 — Hui Mê Wa (Mûang Pao): N 1 — Hui Mut: P 17 — Hui Nam Man (Dan Sai): NE 5 — Hui Nawng Lan (Chiengmai): N 1 — Hui Nûa (Kukan): E 7 — Hui Pa (Nan): N 2 — Hui Pahang: N 2 — Hui Pa Ka (Me Ping rapids): N 3 — Hui Pa Kam (Prê): N 2 — Hui Pa Lai (Kanburi): SW 14 — Hui Pang Hung (Mê Hawng Sawn): N 1 — Hui Paten (Prê): N 2 — Hui Pom (Prê): N 2 — Hui Pong: N 1 — Hui Pong Dan (Mê Hawng Sawn): N 1 — Hui Pongkalong (Prê): N 2 — Hui Rêng (Krat): SE 9 — Hui Sai (Nan): N 2 — Hui Sai (Prachuap): SW 14 — Hui Sala (Nan): N 2 — Hui San (Chiengrai): N 1 — Hui Si (Prê): N 2 — Hui Sui (Nan): N 2 — Hui Takaw (Mê Lao): N 1 — Hui Taleng (Korat): E 8 — Hui Tap Sakê (Prachuap): SW 14 — Hui Tuam (Prê): N 2 — Hui Um Lu (Mê Ping rapids): N 1 — Hui Um Pa (Chiengmai): N 1 — Hui Um Pak: N 1 — Hui Wao (Nan): N 2 — Hui Wa Ton (Prachuap): SW 14 — Hui Wa Ton (Prachuap): SW 14 — Hui Yang (Prachuap): SW 14 — Hui Yawt (Prê): N 2 — Hup Bawn (Sriracha): SE 10 — Hup Bon (Sriracha): SE 10 — Hup Farang (Sriracha): SE 10 — Hup Sê-ow (Sriracha): SE 10.

Jalor = Yala: P 18 — Janjan hill (Kopah): P 16 — Kammala: P 16 —

Kampêngpet: N 3 — Kampêngpet (Songkla): P 17 — Kampuam (Ranawng): P 16 — Kan Bet: N 3 — Kanburi: SW 14 — Kanchanadit: P? 15 — Kang Kampan (Lampang): N 2 — Kan Kradai (Prachuap): SW 14 — Kantang (Trang): P 16 — Kantuli: P 15 — Kao Bangto (Pang-nga): P 16 — Kao Chabaw (Tomo): P 18 — Kao Chalak (Sriracha): SE 10 — Kao Changlon (Songkla): P 17 — Kao Chêm (Tungsong): P 17 — Kao Chum Tawng: P 17 — Kao Chum Tong: P 17 — Kao Dên (Patalung): P 17 — Kao Din (Sriracha): SE 10 — Kao Faimai (Kaw Chang): SE 9 — Kao Hua Mot (Kampêngpet): N 3 — Kao Hua Tek (Patalung): P 17 — Kao Hua Wên (Chantabun): SE 9 — Kao Kalakiri: P 18 — Kao Kalang-tong: E 8 — Kao Kao (Trang): P 16 — Kao Katakam (Pang-nga): P 16 — Kao Ken: P? 15 — Kao Kêo: P 17 — Kao Kêo range (Satul): P 16 — Kao Kêo Kang (Lôi Dan Sai): NE 5 — Kao Kêo Ngoi (Mûang Lem): N 4 — Kao Krading (Lôi): NE 5 — Kao Kuap (Krat): SE 9 — Kao Lêm (Korat): E 8 — Kao Lêm Son: P 17 — Kao Luang: P 17; P? 15 — Kao Luang (Sukotai): N 4 — Kao Mak Kawk (Saraburi): C 11 — Kao Mèo: P? 15 — Kao Namhawn Kêo (Tungsong): P 17 — Kao Nang En (Kaw Chang): SE 9 — Kao Nawng: P 15 — Kao Ngaw: N 3 — Kao Nom Sao (Langsuan): P 15 — Kao Oktalu (Patalung): P 17 — Kao Pa Dêng (Rahêng): N 3 — Kao Pado: N 3 — Kao Pang-nga (Pang-nga): P 16 — Kao Pang Sawang (Saraburi): C 11 — Kao Pawta Chondong (Ranawng): P 16 — Kao Pawta Luang Kêo (Ranawng): P 16 — Kao Petchakut (Chantabun): SE 9 — Kao Pi (Sriracha): SE 10 — Kao Ploi Wên (Chantabun): SE 9 — Kao Plu (Trang): P 16 — Kao Rak: SW 14 — Kao Ram: P 17 — Kao Ri Chaw (Tomo): P 18 — Kao Ri Yai (Kanburi): SW 14 — Kao Sabap (Chantabun): SE 9 — Kao Sakan (Krabin): SE 10 — Kao Saming (Krat): SE 9 — Kao Sataw (Krabi): P 16 — Kao Sisiat A (Korat): E 8 — Kao Soi Dao (Trang): P 16 — Kao Soi Dao (Patalung): P 17 — Kao Soi Dao (Chantabun): SE 9 — Kao Sung (Trang): P 16 — Kao Takiep (Nawng Kê): SW 14 — Kao Talu (Ranawng): P 16 — Kao Tao (Prachuap): SW 14 — Kao Tawng (Kanburi): SW 14 — Kao Toi (Pang-nga): P 16 — Kao Tong (Chumpawn): SW 15 — Kao Wang (Trang, Kao Kao): P 16 — Kao Wong (Surat): P 15 — Kao Yai (Prachuap): SW 14 — Kapong (Takuapa): P 16 — Kapôr (Ranawng): P 16 — Katok (Korat): E 8 — Katu (Puket): P 16 — Kaw Bangben (Ranawng): P 16 — Kaw Chang: SE 9 — Kaw Chang (Ranawng): P 16 — Kaw Dêng (Songkla): P 17 — Kaw Kalat (Pang-nga): P 16 — Kaw Kam Yai: P 16 — Kaw Kien (Pang-nga): P 16 — Kaw Kio (Songkla): P 17 — Kaw Klôn: SE 9 — Kaw Klone: SE 9 — Kaw Koh (Takuapa): P 16 — Kaw Kradat: SE 9 — Kaw Kram: SE 10 — Kaw Lak (Prachuap): SW 14 — Kaw Lam: SE 9 — Kaw Lem Soon: P 17 — Kaw Libong (Trang): P 16 — Kaw Loi: SE 10 — Kaw Lom: SE 9 — Kaw Mu (Trang): P 16 — Kaw Muh = Kaw Mu: P 16 — Kaw Naka: P 16 — Kawng Hê (Chiengmai): N 1 — Kaw Ngua Talam: P 15 — Kaw Pai: SE 10 — Kaw Pa-ngan: P 15 — Kaw Payam (Ranawng): P 16 — Kaw Pipi: P 16 — Kaw Prap: P 15 — Kaw Pu (Krabi): P 16 — Kaw Rabana: P 16 — Kaw Saket: SE 9 — Kaw Samet: SE 9 — Kaw Samit: SE 10 — Kaw Samrong (Kanburi): SW 14 — Kaw Samui: P 15 — Kaw Si Kaw Ha (Patalung): P 17 — Kaw Suan Toon: P 17 — Kaw Tao: P 15 — Kaw Yai (Rahêng): N 3 — Kaw Wieng (Chumpawn): SW 15 — Kaw

Yao Yai (Pang-nga): P 16 — Kemarat: E 7 — Kêng Ap Nang (Mê Ping rapids): N 3 — Kêng Chang (Mê Ping rapids): N 1 — Kêng Chang Hawng (Mê Ping rapids): N 1 — Kêng Chum (Mê Ping rapids): N 3 — Kêng Fa Pin (Mê Ping rapids): N 3 — Kêng Haka Tawk (Mê Ping rapids): N 3 — Kêng Hawm Yai (Mê Ping rapids): N 3 — Kêng Kaw (Mê Ping rapids): N 1 — Kêng Kawn (Mê Ping rapids): N 1 — Kêng Koi (Saraburi): C 11 — Kêng Ok Ma (Mê Ping rapids): N 3 — Kêng Pa Aw (Mê Ping rapids): N 3 — Kêng Pa Mawn (Mê Ping rapids): N 3 — Kêng Pa Ta (Mê Ping rapids): N 1 — Kêng Puang (Mê Ping rapids): N 1 — Kêng Saliam (Mê Ping rapids): N 1 — Kêng Sam Poi (Mê Ping rapids): N 3 — Kêng Soi (Mê Ping rapids): N 1 — Kêng Sup Ta (Mê Ping rapids): N 3 — Kêng Tala Luang (Mê Ping rapids): N 3 — Kêng Tala Noi (Mê Ping rapids): N 3 — Kêng Um Kawng (Mê Ping rapids): N 1 — Kêng Um Lu (Mê Ping rapids): N 1 — Kesap (Langkawi): P 16 — Khaw Pok (Krasom): P 16 — Kiensa: P? 15 — King Panom: P 15 — Klawng Batatae: P 16 — Klawng Hin Kao (Patalung): P 17 — Klawng Kampuan (Ranawng): P 16 — Klawng Kao Kêo: P 17 — Klawng Kloï (Kaw Chang): SE 9 — Klawng Kon (Trang): P 16 — Klawng Kung: N 3 — Klawng Loi (Bangtapan): SW 14 — Klawng Mayom (Kaw Chang): SE 9 — Klawng Nam Wing: P? 15 — Klawng Nonsi (Kaw Chang): SE 9 — Klawng Pak Pra: P 17 — Klawng Pan: P? 15 — Klawng Pao (Trang): P 16 — Klawng Pi (Songkla): P 17 — Klawng Prao (Kaw Chang): SE 9 — Klawng Pu (Trang): P 16 — Klawng Rat (Krabi): P 16 — Klawng Salak Pet (Kaw Chang): SE 9 — Klawng Samawng (Songkla): P 17 — Klawng Samsen (Bangkok): C 12 — Klawng Sawng Lot (Prachuap): SW 14 — Klawng Sing Hanat: C 11 — Klawng Son (Kaw Chang): SE 9 — Klawng Tom (Krabi): P 16 — Klawng Ton (Satul): P 16 — Klawng Tung Sai (Puket Is.): P 16 — Klawng Wa (Kraburi): P 16 — Klawng Wan (Prachuap): SW 14 — Klawng Yai (Songkla): P 17 — Klung (Chantabun): SE 9 — Kuan Pra (Trang, Kao Kao): P 16 — Kohy: SW 14 — Kok Po: P 18 — Kopah: P 16 — Korat: E 8 — Kota Bharu (Rahman): P 18 — Kow Phang Nun: SE 9 — Krabi: P 16 — Krabin: SE 10 — Kraburi: P 16 — Krasom: P 16 — Krat: SE 9 — Kuan Kim Seng (Trang, Kao Kao): P 16 — Kuan Krot (Nakawn): P 17 — Kuan Mieng (Songkla): P 17 — Kuan Po (Satul): P 16 — Kuan Pra (Trang, Kao Kao): P 16 — Kukan: E 7 — Kun Awn (Chiengmai): N 1 — Kun Kang (Doi Angka): N 1 — Kun Tan: N 1 — Kun Yuam: N 1 — Kun Yuam Noi: N 1 — Kuring (Chumpawn): SW 15 — Kwah (Langkawi): P 16 — Kwala Kwah (Langkawi): P 16 — Kwala Malacca (Langkawi): P 16 — Kwê Noi (Kanburi): SW 14.

Lajburi = Hat Sanuk: SW 14 — Lakhon = Nakawn Panom: NE 5 — Lam Lieng (Ranawng): P 16 — Lam Nak Ket: SE 10 — Lam Nang Rawng: E 8 — Lampang: N 2 — Lam Pataya: SE 10 — Lampun: N 1 — Lam Saka: P 17 — Lang Dawn (Sriracha): SE 10 — Langon: P 16 — Langkawi: P 16 — Langsuan: P 15 — La-ngu (Satul): P 16 — Lanta (Krabi): P 16 — La Tang Si: P 17 — La-un (Ranawng): P 16 — Lawng Isom: N 3 — Legeh = Ra-ngê: P 18 — Lêm Chabang (Sriracha): SE 10 — Lêm Chawn Pra: SE 9 — Lêm Dan (Kaw Chang): SE 9 — Lêm Dan Kao (Kaw Chang): SE 9 — Lêm Fan (Sriracha): SE 10 — Lêm Liant = Lêm Samê San: SE 9 — Lêm Nagawp (Kaw Chang): SE 9 — Lêm Pradu (Chantabun river): SE 9 — Lêm Samê San: SE 9 — Lêm Sing (Chantabun): SE 9 — Lêm

Son (Songkla): P 17 — Lêm Tawng Lang: SE 9; SW 14 — Lôî: NE 5 — Lom Sak: N 4 — Lopburi: C 11 — Luang: SW 14 — Lum Sum (Kanburi): SW 14.

McGregor Point (Bangtapan): SW 14 — Mai Pai (Nakawn): P 17 — Makam (Chantabun): SE 9 — Makam Tao (Chainat): N 3 — Mamee: P 16 — Mamu: P 16 — Manorom (Chainat): N 3 — Map Amarit (Chumpawn): SW 15 — Mê Ang (Lampang): N 2 — Mê Ao (Lampun): N 1 — Mê Ao (Lampang): N 2 — Mê Aw: N 1 — Mê Awn: N 1 — Mê Baw Ku (Chiengmai): N 1 — Mê Bong (Lampang): N 2 — Mê Chan: N 1 — Mê Chang: N 2 — Mê Chawa (Prê): N 2 — Mê Chêm: N 1 — Mê Fang (Chiengrai): N 1 — Mê Hao: N 1 — Mê Hat (Chiengmai): N 1 — Mê Haw (Lampun): N 1 — Mê Hawng Sawng: N 1 — Mê Haw Pa (Chiengmai): N 1 — Mê Het (Lampang): N 2 — Mê Hia (Chiengmai): N 1 — Mê Ing: N 1 — Mê Kammi: N 2 — Mê Kampong (Prê): N 2 — Mê Kan: N 1 — Mê Kang (Lampang): N 2 — Mê Kang (Chawm Tawng): N 1 — Mê Ka Pak (Doi Angka): N 1 — Mê Kat (Lampang): N 2 — Mê Kating (Prê): N 2 — Mê Kaw (Lampun): N 1 — Mê Kawn (Chiengrai): N 1 — Mê Kawn (Prê): N 2 — Mê Kawng: N 1 — Mê Kawt (Mûang Prao): N 1 — Mê Klawng: N 3 & SW 14 — Mê Kok (Chiengrai): N 1 — Mê Lama (Chiengmai): N 1 — Mê Lamung (Kampêngpet): N 3 — Mê Lan (Lampang): N 2 — Mê Lan: N 1 — Mê Lao (Chiengrai): N 1 — Mê Lawng (Lampang): N 2 — Mê Li (Lampun): N 1 — Mê Lu (Lampang): N 2 — Mê Luang (Lampang): N 2 — Mê Mai (Lampang): N 2 — Mê Maw: N 2 — Mê Mawk (Lampang): N 2 — Mê Mi (Lampang): N 2 — Mê Moi: N 3 — Mê Mui: N 1 — Mênâm Pasak: C 11 — Mênâm Sak (Saraburi): C 11 — Mê Nan: N 2 — Mê Nga: N 1 — Mê Ngao (Lampang): N 2 — Mê Ngat: N 1 — Mê Ngon (Lampang): N 2 — Mê Pa (Lampang): N 2 — Mê Pai (Lampang): N 2 — Mê Pak (Lampang): N 2 — Mê Pap (Lampang): N 2 — Mê Pawk (Lampun): N 1 — Mê Pêng (Lampang): N 2 — Mê Ping: N 1, N 3 — Mê Poi: N 1 — Mê Pong (Lampang): N 2 — Mê Prachan (Petchaburi): SW 14 — Mê Pu (Lampang): N 2 — Mê Pung (Mûang Pan): N 1 — Mê Rim: N 1 — Mê Sa: N 1 — Mê Sai (Prê): N 2 — Mê Sai Kam (Lampang): N 2 — Mê Sak (Saraburi): C 11 — Mê Saloi (Lampang): N 2 — Mê Samong (Chiengmai): N 1 — Mê Sang-awn (Prê): N 2 — Mê Sawng (Prê): N 2 — Mê Sawt: N 3 — Mê Soi (Lampang): N 2 — Mê Sui: N 1 — Mê Sui Kam (Lampang): N 2 — Mê Sung (Lampang): N 2 — Mê Surin: N 1 — Mê Ta (Lampang): N 2 — Mê Ta (Lampun): N 1 — Mê Tachang (Chiengmai): N 1 — Mê Tai (Lampang): N 2 — Mê Talop (Chiengrai): N 1 — Mê Tang (Prê): N 2 — Mê Taw: N 1 — Mê Têng (Chiengmai): N 1 — Mê Tia (Lampang): N 2 — Mê Tua (Lampang): N 2 — Mê Tûn (Chiengmai): N 1 — Mê Wang: N 1 — Mê Wong: N 3 — Mê Ya (Chawm Tang): N 1 — Mê Yang Mîn (Chiengmai): N 1 — Mê Yom: N 1 — Mê Yom (Lampang): N 2 — Mê Yuak (Prê): N 2 — Mûak Lek (Saraburi): C 11 — Mûang Chêm: N 1 — Mûang Fang: N 1 — Mûang Ha: N 1 — Mûang Hawt: N 1 — Mûang Hêng (Chiengdao): N 1 — Mûang Kawng (Chiengdao): N 1 — Mûang Lawng (Chiengdao): N 1 — Mûang Lawng (Lampang): N 2 — Mûang Lom: N 4 — Mûang Lom Sak: N 4 — Mûang Nago (Lampang): N 2 — Mûang Pai: N 1 — Mûang Pan (Chiengrai): N 1 — Mûang Payao (Chiengrai): N 1 — Mûang

Petchabun: N 4 — Mûang Pichit: N 4 — Mûang Pong (Nan): N 2 — Mûang Prao: N 1 — Mûang Pua (Nan): N 2 — Mûang Sa (Nan): N 2 — Mûangsamsip: E 7 — Mûang Sing: C 11 — Mûang Tak: N 3 — Mûang Têng: N 1 — Mûang Tông: N 1 — Mûang Yuam (Salween): N 1 — Mûk Dahan (Nakawn Panom): NE 5.

Ne Kati (Sriracha): SE 10 — Nakawn: P 17 — Nakawn Panom: NE 5 — Nakawn Patom: C 13 — Nakawn Tai: N 4 — Nak Ket (Sriracha): SE 10 — Nam Chût (Ranawng): P 16 — Nam Hêng (Nan): N 2 — Nam Muk (Nan): N 2 — Nam Mun: E 7 — Nam Pu (Prê): N 2 — Nam Rat (Prê): N 2 — Nam Song Kram: NE 5 — Nan: N 2 — Nang Buat (Supan): C 13 — Nang Rawng (Buriram): E 8 — Nangyawn (Takuapa): P 16 — Na Prao (Sriracha): SE 10 — Naratiwat: P 18 — Na Sak (Langsuan): P 15 — Natan (Prê): N 2 — Natawi (Songkla): P 17 — Nawng Bua: N 3 — Nawng Bua (Udawn): NE 5 — Nawng Chawk: C 13 — Nawng Han: NE 5 — Nawngkai: NE 5 — Nawng Kai Ploi (Sriracha): SE 10 — Nawng Kaw (Sriracha): SE 10 — Nawng Kê: SW 14 — Nawng Nam Kio (Sriracha): SE 10 — Nawng Pak Chi (Ratburi): SW 14 — Nawng Plu (Sriracha): SE 10 — Nawng Pru (Sriracha): SE 10 — Nawng Takram (Sriracha): SE 10 — Nawng Wai: P 15 — Nawng Yai Bu (Sriracha): SE 10 — Non Wat (Korat): E 8 — Nop Pring (Pang-nga): P 16.

Ok Ma (Mê Ping rapids): N 3.

Padang Besar: P 17 — Pa Hin: N 2 — Pahom Pok (near Mûang Fang): N 1 — Pa Kampêng (Doi Angka): N 1 — Pak Ang (Kampêngpet): N 3 — Pakchan (Ranawng): P 16 — Pak Chawng (Korat): E 8 — Pak Kawng: N 2 — Pak Kawng Nai (Lampang): N 2 — Pak Klawng (Chumpawn): SW 15 — Paklat (Bangkok): C 12 — Pakok (Kopah): P 16 — Paknam: C 12 — Paknampo: N 3 — Pak Pang: E 8 — Pak Raw: P 17 — Pakret (Bangkok): C 12 — Paksai: P 15 — Pak Ta: N 2 — Pak Tawan (Prachuap): SW 14 — Pak Tong Chai (Korat): E 8 — Palat (Lampang): N 2 — Palien (Trang): P 16 — Pamak: N 4 — Pa Mieng (Chê Sawng): N 2 — Pang Hua Sua (Chaibadan): C 11 — Pang Tawn (Chiengmai): N 1 — Pang Wan (Langsuan): P 15 — Panom: P 15 — Panom Bencha (Krabi): P 16 — Pa Ngêm (Doi Angka): N 1 — Pang-Nga: P 16 — Pang Pûi: N 2 — Pan Sadet (Sriracha): SE 10 — Patalung: P 17 — Pato (Langsuan): P 15 — Pa Tup: N 1 — Payao (Chiengrai): N 1 — Payuha: P 17 — Petchabun: N 4 — Petchaburi: SW 14 — Petchakut: SE 9 — Plai Paya: P 15 — Plu Ta Ho (Prachuap): SW 14 — Pong Yêng (Chiengmai): N 1 — Pon Pisai (Nawngkai): NE 5 — Prachao Luang = Doi Tung Cha: N 3 — Prachuap: SW 14 — Pran: SW 14 — Prasêng: P 15 — Pratêng (Kanburi): SW 14 — Pratu Pa (Lampang): N 2 — Preacan (Nam Mun): E 7 — Prê: N 2 — Prubua (Nakawn): P 17 — Pa (Udawn): NE 5 — Pu (Udawn): NE 5 — Pu Huat (Nan): N 2 — Pulau Adang: P 16 — Pulau Butang: P 16 — Pulau Kopang (Pang-nga): P 16 — Pulau Langon (Langkawi): P 16 — Pulau Mohea: P 16 — Pulau Niur Stali (Langkawi): P 16 — Pulau Panji (Pang-nga): P 16 — Pulau Rawei: P 16 — Pulau Segai: P 16 — Pulau Segari (Langkawi): P 16 — Pulau Sirih (Langkawi): P 16 — Pulau Tebun (Pang-nga): P 16 — Pulau Tengah: P 16 — Pu Lom Lo (Dan Sai): NE 5 — Pu Tông (Lôi): NE 5.

Rahêng: N 3 — Rahman: P 18 — Raichawng (Takuapa): P 16 — Rajah

Wang (Satul): P 16 — Ranawng: P 16 — Ra-ngê (olim Legeh): P 18 — Rang Mai Dêng: SW 14 — Ratburi: SW 14 — Rawng Kawng (Prê): N 2 — Rawnpibun: P 17 — Rayawng: SE 9.

Saba Yoi (Songkla): P 17 — Sa-i-son (Supan): C 13 — Sai Yok (Kanburi): SW 14 — Sak (Patalung): P 17 — Sakêo (Krabin): SE 10 — Sakon: NE 5 — Sakon Nakawn: NE 5 — Sakon Wanawn: NE 5 — Salak Kawk (Kaw Chang): SE 9 — Salak Pet (Kaw Chang): SE 9 — Samông (Chiengmai): N 1 — Sam Roi Yawt (Prachuap): SW 14 — Sangka (Surin): E 7 — Saniaburi = Sayaburi: NE 5 — San Pa Tawng (Chiengmai): N 1 — Sapli (Chumpawn): SW 15 — Saraburi: C 11 — Sarakam: NE 6 — Sarang: P 16 — Satoepat: SW 14 — Satul: P 16 — Sawankalok: N 4 — Sawng Pi Nawng: SW 14; P? 15 — Sayaburi: NE 5 — Segai (Langkawi): P 16 — Sichon: P 17 — Siepyuan (Chumpawn): SW 15 — Si Kiu (Korat): E 8 — Singburi: C 11 — Singora = Songkla: P 17 — Sin Pun (Krabi): P 16 — Sin Pun (Trang): P 16 — Sisaket: E 7 — Sisawat (Kanburi): SW 14 — Songkla: P 17 — Sop Chêm (Banks of Mê Ping): N 1 — Sop Nago: N 2 — Sop Tûn (Mê Ping rapids): boundary N 1—N 3 — Sriracha: SE 10 — Sukotai: N 4 — Sungai Padi (Naratiwad): P 18 — Sung Non (Korat): E 8 — Supan: C 13 — Sup Sai (Prê): N 2 — Surin: E 7.

Tachang (Korat): E 8 — Tachin: C 13 — Ta Dûa: N 1 — Tak: N 3 — Ta Kanawn: P 15 — Takanum (Kanburi): SW 14 — Ta Kao Pluak: N 1 — Takli: N 3 — Tako (Langsuan): P 15 — Takuapa: P 16 — Takum (Krat): SE 9 — Talang: P 16 — Taleng: SW 14 — Tale Sap: P 17 — Tale Sawng Hawng (Trang): P 16 — Takli (Lôi): NE 5 — Talung (Bureram): E 8 — Tambon Kao Panom (Krabi): P 16 — Tamun (Chantabun): SE 9 — Ta Ngaw (Chumpawn): SW 15 — Tapan Lek (Satul): P 16 — Tapli: P 16 — Tap Sai (Chantabun): SE 9 — Taputsa: N 3 — Tap Yai But (Sriracha): SE 10 — Ta Rong Chang: P 15 — Tarûang (Chantabun): SE 9 — Ta Sala: P 17 — Ta Salao (Kanburi): SW 14 — Ta Samet: P 17 — Tasan (Chumpawn): SW 15 — Ta Sê (Chumpawn): SW 15 — Tasek Enak (Langkawi): P 16 — Ta Takran (Kanburi): SW 14 — Tat Panom (Nakawn Panom): NE 5 — Ta Uten (Nakawn Panom): NE 5 — Ta Yak (Chiengmai): N 1 — Tebun (Pang-nga): P 16 — Telaya Tujoh (Langkawi, Bureau): P 16 — Telok Apan (Terutao): P 16 — Telok Udang (Terutao): P 16 — Telok Wau (Terutao): P 16 — Tepa (Songkla): P 17 — Terutao (Langkawi): P 16 — Tola (Satul): P 16 — Tomo: P 18 — Tonburi: C 12 — Ton Sang: P 16 — Trang: P 16 — Tremangan (Ra-ngê): P 18 — Tungka: P 16 — Tung Kaw (Songkla): P 17 — Tung Luang: P 15 — Tung Nui (Satul): P 16 — Tungpo (Krabin): SE 10 — Tung Pradu (Prachuap): SW 14 — Tungson: P 17 — Tung Wa (Satul): P 16.

Umpang (Kampêngpet): N 3 — Utai: N 3 — Utapao (Songkla): P 17 — Utaradit: N 4.

Wai Wan: SW 14 — Wanawn (Sakon): NE 5 — Wan Chao (Chantabun): SE 9 — Wang Chao: N 3 — Wangduan (Prachuap): SW 14 — Wang Ten (Lampang): N 2 — Wangka (Kanburi): SW 14 — Wangkanai (Kanburi): SW 14 — Wang Kram (Trang): P 16 — Wang Lieng (Lampang): N 2 — Wang Mon (Prê): N 2 — Wang Ngu (Petchabun): SW 14 — Wang Papao: N 1 — Wang Pong: SW 14 — Wang Sapung (Lôi): NE 5 — Wang Sing: N 1 — Wang Taken (Petchabun): SW 14 — Wang Yai (Songkla):

P 17 — Wann Bao: N 1 — Warin: E 7 — Watana (Krabin): SE 10 — Wat Bung Kro (Bangkok): C 12 — Wat Kiriwong: P 17 — Wa-ton: SW 14 — Wat Sing (Bangkok): C 12 — Wieng Papao: N 1.
Yala: P 18 — Yanyao (Surat): P 15 — Yong Sata (Trang): P 16.

OTHER COLLECTORS IN SIAM

Siam, as all tropical countries that are still wanting a comprehensive Flora, needs its Cyclopedia of Collectors. Materials for such a work have already been brought together by Kerr himself in his paper 'Early botanists in Thailand'. This deals summarily with all or practically all collections made in Siam before 1900. There is also A. F. Bruun's paper on 'Danish Naturalists in Thailand', *Nat. Hist. Bull. Siam Soc.* 20 (1961) 71—80. In Burkill's paper 'Botanical collectors, collections, and collecting places in the Malay Peninsula', *Gard. Bull. S. S.* 4 (1927) 113—202, the southern part of Peninsular Siam has been incorporated.

C. C. Hosséus, a German who visited Siam in 1904 and 1905, collected c. 830 numbers mostly in the northern part, and wrote several publications on his tours, all of them cited in his 'Botanische Ergebnisse meiner Expedition nach Siam', *Beih. Bot. Centralbl.* 28 ii (1911) 357—457. In his book 'Durch König Tschulalongkorns Reich' (see p. 431) on p. 75 he stated that both his zoological and his botanical collections are at Munich. Duplicates of his herbarium specimens are at Kew and in some other herbaria.

W. Credner, another German who visited Siam in 1927—1929, also collected plants. The number is not known, but in his book 'Siam, das Land der Thai' (see p. 439) he wrote on p. 2 that his collections were confined to the most important vegetation types, and were named by Kerr himself. We were informed that the material is not at Munich, where Credner one time was a professor, but it might be at Kiel, where he originally worked.

It is believed that except for most of Kerr's own travels, not much has been put on record. There are, however, a number of persons who were apparently inspired by Kerr and who took to collecting, and most of their material found its way to Kerr's herbarium and later to the British Museum. Altogether these collections, although far overshadowed by Kerr's own, make up an impressive contribution; unfortunately collecting came practically to a standstill after Kerr left Siam in 1932, and not much was done till about 1950, when the Royal Forest Department started new collecting drives, whereby over 20,000 numbers were collected largely under the direction of Mr. Tem Smitinand.

We estimate that, when Kerr retired from Siam, through the combined efforts by himself and his 'associates', the number of collections for the whole of Siam from c. 4,250 at the beginning of the century had gone up to 35,000, and the density index of collecting from about 1 to about 8—9 specimens per 100 sq. km. Through the accretions by the Royal Forest Department, the average density index all over Siam has now increased to about 16 specimens per 100 sq. km, which is nearly half the average figure for Malaysia (33 by 1950). In this figure is not incorporated the results of the Danish Expedition under the direction of Prof. Th. Sørensen in 1958—1960.

Although the work after the war cannot be recorded here, we have

attempted to make the information about the Kerr period more complete by adding some particulars about Kerr's 'associates', i. e. the persons whom he inspired to collect and whose material with his herbarium mostly went to the British Museum. This information is not as complete as we wished, and no doubt in Bangkok some more particulars are known than those which have found their way into this paper. We are indebted to several persons who communicated information; these and other sources are mentioned under each entry.

Unfortunately, we have no information available about T. N. Annandale (except the entry in *Flora Malesiana* I, 1 : 17. 1950), W. R. S. Ladell, R. M. de Schaunsee, and D. O. Witt.

J. F. Rock was in no way 'associated' with Kerr, and probably H. M. Smith was not, either, but they have been dealt with because we happened to have some information about them, and because it would be a pity if their material, 2600 numbers or more, altogether, and preserved in the U. S. National Herbarium, Washington, would be forgotten.

ANUWAT, or Phya Anuwat Wanaraks (born 5 June 1891 at Bandawn), a forester. Graduated from the Pyinmana Forestry School in Burma in 1903, entered the Royal Forestry Department in 1904; retired in 1944.

Collecting localities. — Northeastern Siam, 1924—1927.

Collections. — Eighty-seven numbers; there is no evidence that collections made by him are in Kerr's private herbarium; probably they are at Bangkok (BKF).

Sources. — Correspondence with Mr. Smitinand, Bangkok.

BOURKE-BORROWES, D. R. S., Adviser to the Royal Forest Department.

His name occurs on the list of persons whose material is in Kerr's private herbarium in the British Museum. He is the author of the chapter Forestry in "Siam, Nature and Industry".

Mrs. D. J. COLLINS, Née Elian Emily Pemberton (born about 1858 in Burma; died after World War II). She came to Siam in 1877 with her husband who was a surveyor; he died in 1912; she had two daughters, one only surviving infancy; she stayed in Siam for the rest of her life. After a stay at Chiangmai she probably was inspired by Kerr to take up collecting when he visited her at Sriracha in 1911. Later she moved to Bangkok and took a prominent part in the activities of the Natural History Society of Siam and the later Natural History Section of the Siam Society. As the doyenne of British Residents in Bangkok she was awarded the order of the M. B. E. Kerr often visited her during his years in Bangkok. She had a great and wide interest in Natural History; thus, in January 1929 she introduced the mosquito-eating fish *Gambusia* in Siam, after having brought some young specimens from Haifa.

At least fourteen plant species bear the epithet *collinsae* in her honour.

Collecting localities. — She collected chiefly at Sriracha (also some cultivated plants), but also made trips to Chantaburi and collected en route. Collected at Hua Hin and Nawng Ka on various visits and made a visit to N. Siam, collecting about Chiangmai and on Doi Sutep. Some collecting was done in Bangkok, including cultivated plants. In August-September 1933 she visited Trang, and did some collecting chiefly at Chawng. Her numbers run up to 2501.

Collections. — Her plants were incorporated into Kerr's private herbarium now at the British Museum. It is not known whether there are any duplicates elsewhere. She sent at least one living orchid to Kew.

Sources. — Correspondence with Mr. W. B. Pemberton, Billingham, Sussex. A MS. note by Kerr in his number list (now at Kew) of her collections. "Mrs. Collins fifty years in Siam" in *The Bangkok Times Weekly Mail*, 15 September 1936. H. M. Smith, *J. Siam Soc., Nat. Hist. Suppl.* 8 (1929) 14. "Contributions to the Flora of Siam" in *Kew Bulletin* 1911 seqq.

GARRETT, Henry Burton Guest (born about 1871, Teddington, Middlesex, England; died 26 April 1959, Chiangmai). Son of a business man, he was first employed by an insurance firm in London; he was a Corporal in the Volunteer Regiment of the Artists' Rifles. Came to Siam in 1896 as an assistant in the firm of Clarke & Company, since amalgamated with the Anglo-Thai Corporation Ltd. About 1899, Mr. H. Slade, Chief Conservator of Forests, offered him a post as Assistant Conservator in the Forestry Department. He accepted and was stationed at various times at Chiang Mai, Chiang Rai, and Mekongsawn, ultimately rose to the rank of Deputy Conservator, retired in 1929 or 1932 but remained in Chiang Mai to assist the Forestry Department in many ways, until 1936 from which year he devoted himself exclusively to botany. He was interned by the Japanese at Bangkok from 1941 till 1945, then went back to Chiang Mai, where he resumed his bachelor's life of voluntary Spartan simplicity, eschewing any modern luxury. Until the age of 86 he regularly went out botanising.

In World War I he was in active military service in France and Flanders, rose to the rank of Captain, and was distinguished with the Military Cross. His services to the Siamese Government were recognised by awarding him the Order of Commander of the White Elephant. He was a man of unassuming character, generous for his friends and neighbours, very well liked by those who came to know him. He was a great friend of Kerr's, whom he probably met for the first time when the latter came to Chiang Mai in 1903. It is believed that he instilled in Kerr the first interest in the local flora. His close cooperation with Kerr resulted e.g. in their joint paper on Doi Angka, a mountain which they had visited independently.

After World War II, he opened a correspondence with several persons, e.g. F. H. W. Kerr, R. E. Holttum, H. R. Flecher, and the Siam Society to renew interest in the continuation of the *Florae Siamensis Enumeratio*.

The genus *Garrettia* Fletcher (Verbenaceae-Caryopterideae) was named after him; at least 23 species bear the epithet *garrettii*, and 3 species the epithet *garrettiana* in his honour.

Collecting localities. — He collected exclusively in northern Siam, Payap province, visiting many of the low mountains in that region. He collected sparsely, rarely more than 1—2 numbers a day, but prepared them meticulously. The earliest collection I could trace is 14, dated 10 III 1909 (i.e. shortly after Kerr started collecting), the last is 1500, dated 27 XII 1958. He visited Doi Angka 10 times, between 1910 and 1939, Doi Chiengdao 12 times, between 1939 and 1957, Doi Sutep 13 times, between 1909 and 1958.

Collections. — The numbers 1—36 went to Calcutta, but at least one of them is also represented at Kew. The numbers 37 and up were found among Kerr's private herbarium in the British Museum. There is a considerable

set at Kew, of which at least 569 duplicates were presented to the Rijks-herbarium in 1962; these duplicates had been collected with regular intervals during the whole period. It is supposed that most of his private herbarium got lost during the war, the Kew Herbarium receiving the remainder. Also his papers etc. are at Kew.

Literature. — H. B. Garrett, Notes on some traps made by the hill peoples of Siam. — *J. Siam Soc., Nat. Hist. Suppl.* 8¹ (1929) 23—24, pl. 1—17.

H. B. G. Garrett & A. Kerr, Doi Angka, the highest mountain in Siam. — *J. Siam Soc.* 19¹ (1925) 1—19, map, pl. 1—15.

H. B. G. Garrett, Limestone in Siam. — *J. Siam Soc.* 18¹ (1923?) 63—64.

H. B. G. Garrett, Defoliation of Teak trees. — *J. Siam Soc., Nat. Hist. Suppl.* 7¹ (1927) 66.

Sources. — Correspondence with Mr. L. L. Forman, Kew, Mr. E. W. Hutchinson, Cape Town, Mr. Tem Smitinand, Bangkok, Mr. W. A. R. Wood, Chiangmai.

KERR, Frederick Hugh Woodhams (born 10 August 1885, Cerne Abbes, Dorset, England; died May 1958, Hazaribegh, India), youngest brother to A. F. G. Kerr. He took a degree in Divinity at Trinity College, Dublin, 1907, was also an excellent horseman. After his ordination in 1909 he became a clergyman in a parish in London, before he went as a missionary to Hazaribegh (Bihar, Chotanagpur). During World War I he served as an army chaplain in Italy, then back to India, paid a visit to his brother in Siam, who made him enthusiastic for botany. He married a fellow-worker in 1928, became curate of a parish at Arboe, in Northern Ireland. After the death of his wife he went back to Hazaribegh, where he made considerable botanical collections, sometimes coming on leave to visit Ireland, where he also botanized.

After his brother's death he assisted in arranging his plants and papers. He took a great interest in his brother's work on the flora of Siam, and after the war exchanged several letters with Garrett, showing his concern about the continuation of the *Florae Siamensis Enumeratio*.

The handwriting of the brothers is totally different (*fig. 3*), but some confusion has crept in with the labels. F. H. W. Kerr's plants have labels with either no name, or misprinted M. F. G. Kerr, according to A. F. G. Kerr's notes. However, these labels with M. F. G. Kerr were also used, in at least one case I saw, by A. F. G. Kerr, notably for an unnumbered collection from Saraburi on the Menam Sak 4 VI 1923. F. H. W. Kerr's plants are cited in the *Florae Siamensis Enumeratio* with 'F. Kerr' as the collector.

Collecting localities. — He collected within a radius of 4 miles from Chiangmai, and also on Doi Sutep, at Buak Ha (at c. 1350 m) 18—21 VII 1921, and camped at Hui Chang Kien (or Hai Chang Kuen; 650 m) 23 VII—20 VIII, about 455 numbers. He sent his exercise books to Craib for examination.

Collections. — His highest number is approximately 2650, including the collections from Hazaribegh and Ireland. Most of his plants, perhaps all of them, both from Siam and from India, are at the British Museum; possible there are some at Edinburgh and Kew.

Sources. — "Rev. F. H. W. Kerr. An Appreciation" in the *Irish Times*

13 VI 1958, by G. C. D.; a letter by F. H. W. Kerr, Chiangmai 17 X 1921 to W. G. Craib, which is now at Kew; a note by A. F. G. Kerr in the number list of his brother's collections; verbal communication with A. F. G. Kerr's daughters.

LAKSHNAKARA, Mom Chao, or M. C. Lak Kashemsant (born 1902, Bangkok; still alive), Inspector General, Ministry of Agriculture, Bangkok. He became Kerr's assistant in 1925, visited England in 1928—1930, and succeeded Kerr in 1932; retired in 1962. He saw vol. 3 part 2 of the *Florae Siamensis Enumeratio* through the press in 1954.

A *Gentiana*, an *Ixora*, and an *Oldenlandia* bear the epithet *lakshnakarae* in his honour.

Collecting localities. — He conducted at least three tours, one up the Menam Pasak in eastern central Siam in 1926, one in Pattani in the Peninsula in 1931, and one in northeastern Siam in 1932, of which Tour Reports exist. It is not known whether he made more collections.

Collections. — His highest known number is 1526. Material is in Bangkok (BK), at Kew, and probably also at the British Museum, and Aberdeen.

Literature. — Anonymous Tour Reports: 1) Report on a Tour up the Menam Pasak (October 4th—13th 1926). — The Record no. 28 (IV 1928) 275—277 + 2 phot.

2) Report on a Tour in the Province of Naratiwad (April 12th—May 6th, 1931). — The Record no. 41 (VII 1931) 1—6 + 4 phot.

3) Report on a Tour in the Circles of Nakon Rajasima and Udon (June 6th to July 10th B. E. 2475). — The Record XII no. 3 (4th quarter B. E. 2475) 1—6 + phot.

Sources. — Correspondence with M. C. Lak Kashemsant; a note by Kerr in his number list.

MARCAN, Alexander, F. I. C., M. I. M. M., born 16 October 1883 at Leeds, died 12 August 1953, London. He was educated at the Royal School of Mines, London, went to Bangkok in 1909 as Chief Assayer to the Royal Mint. He wanted to serve in World War I but remained on his post on request of the British Government. When in 1917 the chemical works in the country were centralised, he was appointed Government Chemist and Chief Assayer, in 1920 Director of the splendid new Government Laboratories, which in 1926 became a department in the Ministry of Commerce. He initiated highly important and successful work on krabao (*Hydnocarpus*) oil against leprosy which won him recognition. He served on official committees dealing with legislation on weights, measures, opium dross, and liquid fuel; was honorary secretary of the Siam Natural History Society, and Secretary of the Council of the Siam Society from 1928 till 1932, the year he retired from Siam, shortly after Kerr.

He was one of Kerr's best friends and saw much of him during the years they were together at Bangkok. The genus *Marcania* Imlay (Acanthaceae-Justicieae) was named after him, as were *Dalbergia marcaniana* and *Bauhinia bracteata* var. *marcanii*; 6 species bear the epithet *marcanii* in his honour.

Collecting localities. — He started collecting 31 XII 1919. In 1920 and following years he went out collecting with Kerr on many a Sunday in the

country round Bangkok; sometimes they took a train. From 7 to 11 VI 1930 he made a trip with Kerr to Ban Keng, between Krabin and Wattana. As there are no Kerr numbers from this trip, it is apparent that the collections made came into Marcan's herbarium. There is a collection (no. 2601) from Pran, SW of Bangkok on the coast, of 25 II 1931, but it is not known whether he made important remote trips. His highest number known is 2814.

Collections. — The numbers 1—651 went to Kew, 652—735 to Singapore, 736—842 to the British Museum, 956—988 to Singapore, of 989—1034 the grasses went to E. D. Merrill (then in California?), the rest to Singapore. Several later numbers of grasses went also to Merrill. There is also material at Aberdeen and numbers of him have been cited in the *Florae Siamensis Enumeratio*. His herbarium was in 1935 purchased by the British Museum. His labels were partly written by himself (well legible), partly by Kerr.

Literature. — A. Marcan, The story of drugs, with special reference to Siamese medicinal plants. *J. Siam Soc., Nat. Hist. Suppl.* 7 (1927) 107—117.

A. Marcan, Notes on the chemistry of *Hydnocarpus* and *Taraktogenes* oils. *Tech. and Sci. Suppl. to The Record* (XI 1930) 14—15.

A. Marcan, Scientific methods in the detection of crime. *Siamese Police Journal* (XII 1931, II 1932) 33 pp.

Sources. — Correspondence with Mr. D. Marcan, Wycombe, England, his son. A farewell appreciation by E. J. G(odfrey) in the *J. Siam Soc., Nat. Hist. Suppl.* 8 (1932) 345—346, and one in the *Bangkok Times* 23 IV 1932. An obituary note in *The Times* 26 VIII 1953. The diaries of A. F. G. Kerr. Notes made by Kerr to the list of Marcan's numbers, now in the Kew Library.

NOE, or Nai Noe Israngkura or Nai Noi Israngkul (born in 1900 at Bangkok; still alive), Kerr's assistant. He joined the Botanical Section in 1920 and accompanied Kerr on all his field trips; he is now retired.

Erycibe, *Impatiens*, *Lagerstroemia noei*, *Adina polycephala* var. *noei*, and *Bulbophyllum noeanum* were named in his honour.

Collecting localities. — From a few records in the *Florae Siamensis Enumeratio* it is apparent that he collected in Chantaburi, Krat (numbers 9, 10), and in Rachasima, Korat, (numbers 144, 206, 287). A few numbers in Kerr's own herbarium carry his name as a collector. A list of his numbers was not found at Kew.

Collections. — Presumably his collections were treated in the same way as Kerr's own.

Sources. — Correspondence with Mr. M. C. Lak Kashemsant, Bangkok.

PUT, Nai (born approximately 1877; died some years ago), was privately employed to collect plants for Kerr, and reptiles for H. M. Smith. The handwriting to his collections, as far as it is in European characters is Kerr's. On most of his labels the data have been indicated by rubber stamps, but part of the duplicates were distributed without locality.

In his collecting books 3 labels were attached to each counterfoil. The upper label bears no mark; on the middle label there is a G in the upper right hand corner, on the bottom label a letter O. Their meaning is not known.

Diospyros, *Impatiens*, *Jasminum*, *Lactuca putii* were named in his honour.

Collecting localities. — Ayuthia prov.(?): Ta Taklua and Hui Pa Lai 23—25 VI 1926 (1—20); Wang Pra 26 VI (21—26); Hin Dat 15°06'N 101°34'E, 28 VI—15 VII (27—137); Ban Din So 16 VII (138—150);

Baw Re 17—22 VII (151—226)³¹). — Prachuap 11°50'N 99°49'E, 13—18 IX (227—292). — Doi Chiengdao 19°22'N 98°59'E, 12—23 X (293—432). — Sriracha 13°09'N 100°48'E, 14—16 XI (433—484). — Krat 14°26'N 103°04'E, 19—20 I 1927 (485—508); Kao Saming, 11 km to the NW. 21 I—2 II (509—623). — Surin 14°53'N 103°29'E, 25 II—1 III (624—671). — The books with the numbers 672—870 are missing. — Kaw Samui 9°30'N 100°E, 15—17 VI (871 or lower—888). — Chantabun 12°36'N 102°07'E, 3 VII (889); Kao Sabap 12°32'N 102°14'E, 5—8 VII (890—934). — Prov. Surat, Chumpawn, approx. 10°40'N 99°20'E, Siep Yuan 5—7 IX (935—1003); Sapli 8—9 IX (1004—1032); Bang Son 10—12 IX (1033—1077). — Prov. Ayuthia, Saraburi: Ban Nawng Bua 26 IX—4 X (1078—1150). — Kaw Pa-ngan 9°45'N 100°03'E, 4—11 XI (1151—1263); Kaw Samui 9°30'N 100°E, 15—20 XI (1264—1325). — Bangtapan 11°10'N 99°40'E, 23—30 XII (1326—1455). — Bang Son 10°40'N 99°20'E, 8—15 III 1928 (1456—1599). — Tako 10°06'N 99°06'E, 12—24 VI (1600—1767). — Sai Yok 14°09'N 99°10'E, 30 VII—3 VIII (1768—1852). — Muak Lek 14°39'N 101°12'E, 3—5 IX (1853—1900); belated numbers from Sai Yok and Muak Lek (1901—1907). — Watana 13°43'N 102°18'E, 14—15 X (1908—1960); Aran Pratet 13°43'N 102°31'E, 16—20 X (1961—2088). — Prov. Nakawn Sawan: Takli 25—27 XI (2089—2153); Chaung Ke 28 XI (2154—2168); Hua Wai 15°42'N 99°27'E, 29 XI (2169—2173); one belated number from Watana (2174). — Prov. Nakawn Rachasima, Korat: Hui Taleng 21—25 XII (2175—2258). — Prov. Rachaburi, Prachuap: Kan Kradai 13—17 I 1929 (2259—2356). — Tung Song 8°10'N 99°40'E, 12—14 II (2357—2393). — Hin Lap 14°40'N 101°07'E, 18—20 VIII (2394—2438). — Pran 12°22'N 99°55'E, 25—27 XI (2439—2473); San Roi Yawt 12°13'N 99°53'E, 30 XI—2 XII (2474—2530); one belated number from Pran (2531). — Ang Tawng 14°35'N 100°25'E, 24—31 XII (2532—2613). — Prov. Ayuthia: Muang Sing 5—6 I 1930 (2614—2636). — Chainat 15°12'N 100°07'E, 9—10 I (2637—2676). — Rayawng, Ban Pe 12°38'N 101°17'E, 18—25 II (2677—2782). — Prov. Nakawn Rachasima, Korat: Ban Chum Seng 13—18 III (2783—2863). — Kao Kuap 12°24'N 102°45'E, 20—27 V (2864—3048). — Prov. Rachaburi, Kanburi: Ta Salao 10 VII (3049—3063); belated numbers from Ban Chum Seng (3064—3079). — Muak Lek 14°39'N 101°12'E, 24—25 VI (3080—3090). — Aran Pratet 13°43'N 102°31'E, 13—16 IX (3091—3155). — Hui Yang 11°36'N 99°40'E, 1—8 X (3156—3262); a belated number from Muak Lek (3263) and from Kao Kuap (3264). — Doi Saket 18°53'N 99°09'E, 20—21 X (3265—3280). — Prov. Payap, Chiengmai: Doi Nangka 1—23 XI (3281—3483). — Doi Saket 18°53'N 99°09'E, 23 XI (3484—3489), and one belated number from there 30 X (3490). — Ban Ta Chang 15°N 102°16'E, 23—24 XII (3491—3504); Kao Lem 26—30 XII (3505—3588); Ban Ta Chang 1—2 I 1931 (3589—3599). — Bukit 6°10'N 101°50'E, 24—26 I (3600—3648); Yala 6°32'N 101°15'E, 29 I—1 II (3649—3706). — Prov. Payap, Chiengmai: Pang Tawn 20—21 IV (3707—3721); Doi Nangka 22—27 IV (3723—3802); Pang Tawn 28 IV—6 V (3803—3937). — Kao Yoi 13°20'N 99°50'E, 16—18

³¹) The rubber stamp, like Kerr's List of Geographic Names, gives Kanburi province. Hin Dat, however, the only of the 6 places that could be found on our maps, is not in Kanburi, but in the Saraburi district, in the NE corner of Ayuthia province.

VI (3938—3951). — Muang Payao 19°11'N 99°54'E, 11—13 VII (3952—3994); Muang Ngao 18°46'N 99°58'E, 15—17 VII (3995—4033). — Prov. Nakawn Sawan: Hua Wai 15°42'N 99°27'E, 27—31 VIII (4034—4111). — Prov. Surat: Kantuli 6—11 X (not IX; 4112—4213). — Bua Yai 15°35'N 102°22'E, 31 X—3 XI (4214—4305); Lat Bua Kao 7—10 XI (4306—4391). — Doi Chiengdao 19°22'N 98°59'E (4392—4548).

Sources. — Nai Put's field books, now in the Kew Library. Correspondence with Mr. M. C. Lak Kashemsant, Bangkok.

RABIL, or Nai Rabil Bunnag (born 1902 at Bangkok; still alive), joined the Botanical Section in 1926 as Kerr's assistant, accompanied Kerr on many trips and looked after the office.

Ardisia, *Begonia*, *Erycibe*, *Lasianthus rabilii* were named in his honour.

Collecting localities. — We have seen records from Kaw Chang, and from Tong Sung in the Peninsula.

Collections. — The highest number seen is 364. His material is with Kerr's private herbarium in the British Museum, and perhaps also at Bangkok (BK).

ROCK, Joseph Francis Charles (born 1884 at Vienna, Austria; still alive; mostly cited J. F. Rock), botanist, sinologist, explorer. He was three times at Chiangmai, in 1919, 1920, and 1921. The first time he was there to make a study of *Hydnocarpus* and *Taraktogenos*. The second time he visited Kerr in October 1920.

Collecting localities. — He collected a series of at least 1912 numbers (apparently numbered from 1 onwards) in the province of Payap, northern Siam, many of them on Doi Sutep, Doi Chiengdao, in the vicinity of Chiengrai, and along the Me Ping between Chiangmai and Raheng. He also collected in Korat. After his collecting in Siam in 1920 he moved northwards to the Shan States in Burma and to China and Tibet.

Collections. — Many of his plants have been revised and cited in the *Florae Siamensis Enumeratio*; most of them are in the U. S. National Herbarium, Washington; there are also woody plants in the Arnold Arboretum Herbarium, and *Rhododendrons* (also from Siam?) are in the Edinburgh Herbarium. His field notes are in the U. S. National Herbarium.

Literature. — For more information, see *Cyclopedia of Collectors, Flora Malesiana I*, 1 (1950) 443.

Sources. — Correspondence with Dr. J. F. Rock. Honolulu.

SMITH, Dr. Eryl; née Glynne (born at Glyndyl, Bangor, N. Wales; died 25 January 1930 at London in a motor-accident). She was educated at University College, Bangor, at the School of Medicine for Women, London, and at the Royal Free Hospital, took M. B. and B. Sc. degrees at London University in 1918, and after holding medical appointments at home and abroad, came to Siam as Dr. Malcolm A. Smith's wife in 1921. She travelled in Hainan in 1923, in Cambodia in 1924, in SW. Celebes and Timor in 1925, then went back to England; afterwards she worked at Kew on ferns.

Begonia, *Milusia*, *Rinorea*, *Psychotria smithiae* were named in her honour.

Collecting localities. — Peninsular Siam, Nakawn Sri Tammarat, from late February to early April 1922, collecting mainly ferns; visited also Fraser's Hill in Malaya.

Collections. — The number list of her herbarium at Kew is largely blank;

the highest number filled in is 1948. Her plants are in the British Museum, among Kerr's private herbarium.

Literature. — She published a paper on the ferns of Kaw Tao, J. Siam Soc., Nat Hist. Suppl. 8 (1929) 1—9, mainly based on Kerr's collections.

Obituary (anonymous), J. Siam Soc., Nat. Hist. Suppl. 8 (1930) 128—129, and Kew Bull. 1930: 175. See also Flora Malesiana I, 1 (1950) 489.

W. G. Craib described "Six new flowering plants from Siam" collected by her, J. Siam Soc., Nat. Hist. Suppl. 6 (1923) 43.

SMITH, Dr. Hugh McCormick (born 21 November 1865 at Washington; died apparently after 1938), a zoologist. He took his M. D. Degree at Georgetown in 1888, his LL. D. degree at Dickinson College in 1908. As an ichthyologist, he held posts in various fisheries in the U. S. A. between 1886 and 1922, and was adviser to the Department of Fisheries and Aquatic Resources in Siam from 1923 till 1935. He was associate curator in zoology at the U. S. National Museum; professor at Georgetown 1895—1902. He was leader of the Section Natural History of the Siam Society in 1926—1927. He published many zoological papers, mainly on fishes. Although he was well acquainted with Kerr, it is not known as to how far his botanical collecting was stimulated by the latter.

Collecting localities. — He apparently collected throughout Siam. An itinerary is not known, but a list of his localities (not in a definite order) is at the U. S. National Museum, Washington.

Collections. — Approximately 650 plant specimens in the U. S. National Herbarium; probably he collected more.

Literature. — Many important papers in the J. Siam Soc., Nat. Hist. Suppl., all zoological. He is also the author of the chapter 'Fauna' (except Butterflies and other insects) in "Siam, Nature and Industry" (1930). A list of his Cyperaceae was published by E. P. Killip, J. Siam Soc., Nat. Hist. Suppl. 7 (1927) 55—57.

Sources. — American Men of Science (1938) 1318; correspondence with Dr. Jason R. Swallen, Head Curator, Dept of Botany, U. S. National Museum, Washington.

VANPRUK, or Phya Wanapruek Phicharn (born 23 June 1879, Bangkok; died), a son of Henry Alabaster who was then Director of the Royal Museum and Garden. Graduated from the Imperial Forest Institute, Dehra Dun, India, in 1902, entered the Siam Forestry Service in 1903. In 1914 he visited England; after a distinguished career he retired in 1934.

He was elected a Fellow of the Linnean Society of London on 21 January 1915; an announcement of his withdrawal was reported at the Meeting of 24 May 1923, no reason for his withdrawal being given.

Artabotrys, *Clerodendron*, *Diospyros*, *Jasminum*, *Strychnos*, and *Tarenna vanprukii* were named in his honour.

Collecting localities. — He seems to have collected exclusively in northern Siam.

Collections. — About 1200 numbers, which were studied for the *Flora Siamensis Enumeratio*; probably now at Kew and at Bangkok (BKF).

Sources. — List of the Linnean Society (1921—1922) 29; Proc. Linn. Soc., 135th Sess. (1923) 22. Correspondence with Mr. Tem Smitinand, Bangkok, and with Mr. H. S. Marshall, Kew.

WINIT, in full Phya Winit Wanandorn, or also Khun (or Khoon) Winit, Luang Winit, Phra Winit (born 1896; died 1955), a forest officer. After he graduated from the Imperial Forest College in Dehra Dun, India, he joined the Royal Forest Department in April, 1911, where he did much to promote forest botany and took a keen interest in taxonomy, especially ferns, ornamental plants, and Musaceae.

Fifteen plant species were named after him; see Suvarnasuddhi & Smitinand.

Collecting localities. — He started collecting in 1913 in northern Siam; collected also in southern central Siam in 1920, in southwestern Siam in 1921, in northern Siam in 1923, on Doi Angka in 1925, in northern Siam 1926—1930.

Collections. — The highest number filled in his number list is 1923; his plants were studied for the *Florae Siamensis Enumeratio*; there are specimens in the British Museum, at Kew, and at Bangkok (BKF).

Literature. — Phya Winit Wanandorn, Notes on introduced plants in Siam. — *J. Siam Soc., Nat. Hist. Suppl.* 9 (1933) 89—107.

Phya Winit Wanandorn, A reputed rejuvenator. — *J. Siam Soc., Nat. Hist. Suppl.* 9 (1933) 145—147.

Phya Winit Wanandorn, Further notes on introduced plants in Siam. — *J. Siam Soc., Nat. Hist. Suppl.* 9 (1934) 265—285.

Suvarnasuddhi & Smitinand, *Thai Forest Bull. Bot.* no. 3 (1955) ii + 33 pp., wrote an appreciation and gave descriptions of all the plants named after Winit.

A List of Siamese plant names, part 2 (1960) 801 pp., compiled by Winit, was published in mimeographed form by the Royal Forest Department.

Sources. — Correspondence with Mr. Tem Smitinand, Bangkok.

YUANG, Nai, a village doctor in the vicinity of Ba Na, Surat. Kerr met him in August 1927, and he did some collecting. His number list, now at Kew, has been filled in to number 57. His material is in Kerr's herbarium, now in the British Museum.

ACKNOWLEDGEMENTS

The origin of this paper was a feeling of irritation caused by my being unable to decipher Kerr's handwriting and to find his localities on a map. So it came about that, when going through the map collection during a visit at Kew in the summer of 1961, and seeing some sketchy maps drawn by Kerr, my curiosity leapt up. It soon appeared that all his journals, field books, and printed reports are preserved in the Kew Library. When I hesitatingly expressed the idea of compiling an Itinerary, I was encouraged by staff members of the Kew Herbarium and kindly given all facilities. It is a privilege to thank here Sir George Taylor, Director of Kew Gardens, for his permission to publish the data gathered in his institute. It is also a great pleasure here thankfully to mention the name of Mr. L. L. Forman, who became keenly interested and gave much bibliographical and other help. I am indebted to Mr. P. F. Hunt, also of the Kew Herbarium, who communicated to me the results of his work on Kerr's orchid materials and notes, to Mr. H. S. Marshall of the Kew Library, and also to Miss P. T. Edwards and Mr. E. W. Groves of the British Museum, for their valuable help.

As almost no biographical material had been published, my curiosity

grew into that direction. Through the intermediation of Mr. Forman and Mr. G. Weld, Kerr's old friend and solicitor, I came in contact with his three daughters, Miss Eileen M. Kerr, Miss Barbara Kerr, and Mrs. Anne Wilson née Kerr, who all live in London. They received me with great kindness and gave me the most valuable material, including part of their father's diaries and of his correspondence with Professor Dixon, and some portraits. Moreover, they gave me the addresses of their father's old friends Mr. W. A. R. Wood at Chiangmai and Mr. E. W. Hutchinson at Capetown, Dr. H. G. Deignan at Geneva, and Mrs. W. Harding Kneedler in the U. S. A., who all communicated some of their recollections, and they were kind enough critically to read the biographical part of the MS. Without their generous help the preparation of this paper would not have been possible; without their kindness and encouragement it would not have given me such an amount of pleasure.

Dr. H. R. Fletcher at Edinburgh is remembered here for his kind permission to reproduce part of his letter to Kerr, and so are Mr. Tem Smitinand at Bangkok, Mr. D. Marcan at Wycombe, England, Mr. M. C. Lak Kashemsant at Bangkok, Mr. W. B. Pemberton at Billingshurst, England, Dr. Euphemia C. Barnett at Aberdeen, Mr. J. E. Dandy at London, Dr. H. Merxmüller at Munich, and Mr. A. J. McConnell at Dublin, all of whom contributed to this paper by providing me with pieces of information.

Finally, it must be remarked that the work on this paper at Kew and the British Museum could be done in the spare time of a visit which was paid to those institutes for quite a different purpose. As this visit was made possible by a grant of the Netherlands Organisation for the Advancement of Pure Research (Z. W. O.), the present paper is to be regarded as an indirect result of the liberality of that organisation.

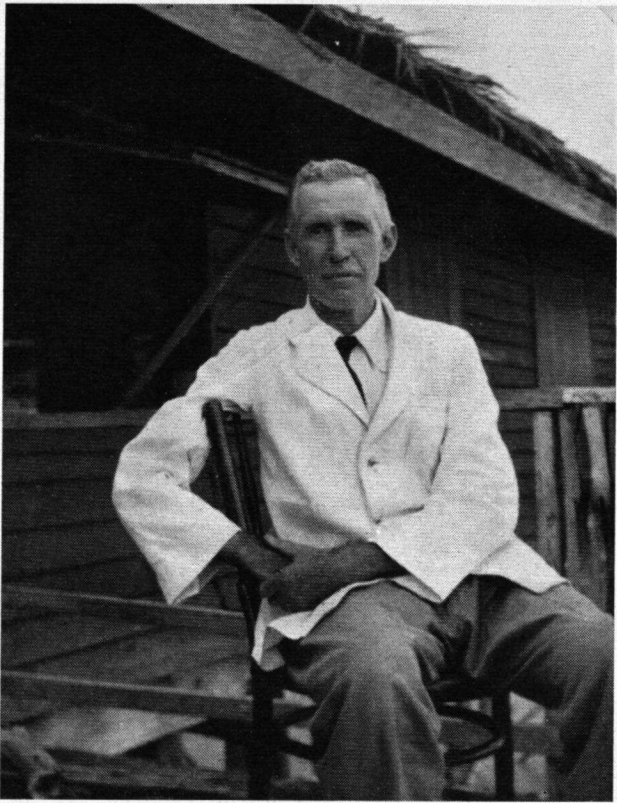


Fig. 1. A. F. G. Kerr as a doctor at Chiengmai.

FLORA OF SIAM

No. 15097

Locality *Khao Kula Kiri, Pattani.*Altitude *c. 100 m.*Date *April 4⁵ 1970*

Local Name

Notes *Shrub c. 0.3 m high; flowers yellow;
ever green fruit.*

A. F. G. KERR.

FLORA OF SIAM

No. 16759

Locality *Khao Kwata Chongdang, Ranung.*Altitude *c. 700 m.*Date *January 20⁵ 1979*

Local Name

Notes *Shrub 2 m high; ever green
fruit.*

A. F. G. KERR.

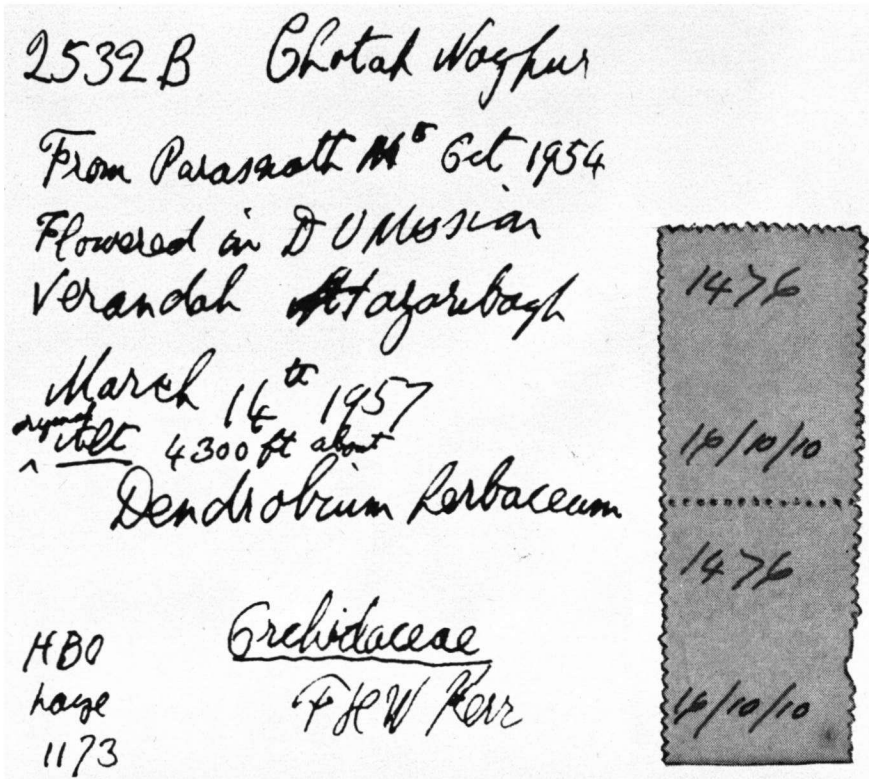


Fig. 3. Left: A label written by F. H. W. Kerr at Hazaribagh, India. The letters HBO refer to Haines, *The Botany of Bihar and Orissa*. Right: Two of A. F. G. Kerr's small tag-labels; some of his plants were distributed with no more data. The ones here belong to number 1476, collected 16 October 1910.

Fig. 2. Two of Kerr's labels. The written texts read:
 15047 — Kao Kalakiri, Pattani. — c. 100 m. — April 4th 1928 — Shrub c. 0.3 m high; flowers yellow; evergreen forest.
 16759 — Kao Pawta Chongdong, Ranawng. — c. 700 m. — January 20th 1929 — Spathe pale green; in evergreen forest.
 Note that all Kerr's altitudes are preceded by a 'c' (for circa), which should not be confused with a '1.'; the upper label does not read "1.100 m."

Fig. 4. Kerr depicted by a cartoonist in a local newspaper. The peculiar dress and the tools in his hands bear to a Brahman ploughing ceremony, Raek Nah Khwan in Thai, which is to ensure good crops in the coming season. It is performed by the King or a high agricultural authority in a ceremonial dress and a long-pointed hat, who holds a sacred bull to pull a plough. The rites of the ceremony are prophetic. Sacred bulls are employed to choose between seven different kinds of food or drink; their choice indicates the crop that will be plentiful in the coming year. See 'Holiday Time in Thailand' vol. 2 no. 5 (May 1961) 34—47.

On Kerr's coat are the words 'Minister of Agriculture' (actually Director General of Agriculture). The caption is not complete but means 'I understand that if Thailand wants a good yield...'. Apparently it is implied that this ceremony should be performed.

The latest ceremony was held in presence of the King on 11 May 1961. The last time it was held before was 30 years ago, i. e. 1931, the time when Kerr was Director General.



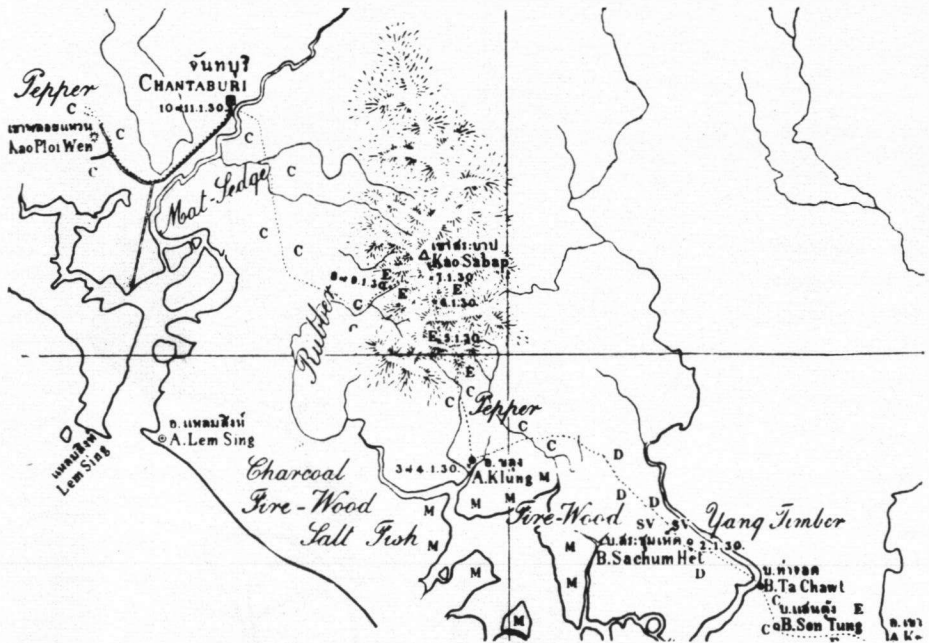


Fig. 5. Reproduction of a part of a map added to Kerr's Report on a Tour in the Provinces of Krat and Chantabun. The letters along the route, which is indicated by a dotted line, denote the vegetation, C stands for Cultivation, D for Dipterocarp forest, E for Evergreen forest, M for Mangrove forest. The dates are given at the points when they were visited.

Fig. 6. A part of a letter by A. F. G. Kerr, Bangkok, 18 January 1931, to Professor H. H. Dixon, Trinity College, Dublin. The text reads: (p. 2) "After all these months in Bangkok I am starting for the jungle to-morrow. I won't have many more trips as I expect to leave the country for good before the end of the year. If all goes well, after leaving Siam I propose to spend some months travelling in other countries, our neighbours, to see something of their flora. I don't know how I will like it when I have to give up the jungle all together and settle down at home. The jungle has great attractions (p. 3) for me.

Well, all the pleasure I have got out of the jungle I really owe to you; first for getting me keen on botany, and then for getting me a job out here. It seems a long time ago now since you told me of Jobson's letter, just about 30 years ago. Now I am regarded as one of the very old stayers in Bangkok!

Your explanation of the amount of vapour transmitted" (through stomata is very interesting).

3

²
 After all these months in Bangkok
 I am starting for the jungle
 to-morrow. I want to see many
 more things as I expect to cover
 the country from south to the
 end of the year. If all goes
 well, I like being so near I
 prefer to spend some months
 travelling in other countries,
 our neighbours, to see something
 of their natural flora. I
 don't know how I will like
 it when I have to send up
 the people all together and
 settle them at home. The
 people has great striking

for me.
 Well, do the pleasure I have
 got out of the jungle itself
 owe to you; first for
 getting me taken in London,
 and then for getting me a
 job out here. It seems
 a long time ago now since
 you told me of Johnson's
 letter, just about 30
 years ago. Now I am
 separated as one of the
 very old stages in Bangkok!
 Your explanation of the
 amount of vegetation has