

## Previously unrecorded facets of the life of the ‘Father of Thai Botany’ A.F.G. Kerr including further information on his distribution of plant material.

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### ABSTRACT

Further information on the life of A.F.G. Kerr, concerning his craniological collection, historical interests, modes of travel in Thailand, mapping of expeditions and distribution of living plants, herbarium material and seeds are briefly documented.

KEYWORDS: A.F.G. Kerr, craniology, living plant collections, biography.

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### INTRODUCTION

A.F.G. Kerr is sometimes referred to as the ‘Father of Thai Botany’ (Jirasutas, 2014). Due to a bequest in his will, most of Kerr’s written and photographic archive material ended up in the Royal Botanic Gardens, Kew. This bequest, 1 roll of maps of Thailand, 11 boxes of notes, booklets and manuscripts, 4 green boxes of notebooks and 2 cases of lantern slides, as well as some specimens, was transferred by a former Director (Dr J. Ramsbottom) of the British Museum (Natural History) (BM), the original beneficiary of Kerr’s will, on 14<sup>th</sup> August 1942 to the Royal Botanic Gardens, Kew. Other archive material of Kerr’s is scattered in other institutions including in the Bangkok Herbarium (BK) and in the Trinity College Dublin Herbarium (TCD). Recently, I had the opportunity to re-examine the Kerr archives in Kew. As summary information on this collection is not easily available it may be useful to give some idea of the scale and content of the material held there.

Firstly, I deal with that part of the archive that I have explored in reasonable depth: his diaries and photograph albums. Kerr usually recorded information whilst in Thailand in two different sets of diaries. The first member of the first series of diaries initially held detailed accounts of his medical practice which then morphed into a detailed record of daily observations on his collecting expeditions, later diaries are

only concerned with his expeditions: there are 24 of these diaries in Kew covering the period 1901–1932. Kerr also kept a set of physically smaller diaries that recorded his activities, both on expeditions and elsewhere in summary form. Entries in these, the second series of diaries, are brief often comprising only a few words when he was on field expeditions but somewhat more expansive when he was not: there are four of these diaries in Kew covering the period 1909–1933. Notably absent from the Kew archives are diaries covering most of period of the First World War when Kerr was in military service (Jacobs, 1962).

In addition to these written records Kerr was an avid photographer who eventually took to using film and making prints from the negatives: there are 17 photographic print albums in Kew covering the period 1909–1932 with a very few photographs from 1900–1909. These albums contain approximately 4,200 black and white prints (Paul Davis, pers. com.). It appears that Kew also held a number of black and white negatives as well, possibly, as some cine film (Paul Davis, pers. com.). Unfortunately, these were on cellulose nitrate stock and had to be disposed of. Why? Well, this type of film is a severe fire risk [information on cellulose nitrate film from: <http://www.hse.gov.uk/pubns/indg469.pdf>, accessed 20 February 2019]. As it ages, it can: start to decompose; become unstable even at room temperatures (38°C);

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release poisonous, potentially explosive gases; self-ignite and be very difficult to extinguish (submersion in water or exclusion of oxygen may not work). Some of the Kerr negatives in TCD appears to be on cellulose nitrate stock and whilst they do not show signs of decay a decision has been made to image the material, so as to allow for its safe disposal.

Further to these materials is an equally vast collection of archive material in Kew that remains to be explored in detail. In particular, his early photographs were almost all taken on square 3¼" glass plates (AKA lantern slides) which he stored in boxes as he went along: there are 11 boxes of these in Kew covering the period 1901–1913. Kerr also kept a series of plant tag books that record his plant collections: there are 158 of these in Kew covering the period 1908–1931. These contain about 22,000 entries (Paul Davis, pers. com.). He also kept collectors lists, lists of orchids, herbarium notebooks (written whilst in Kew), notes on other collectors, notes on various plant families, notes on various plant groups (e.g. medicinal plants), various drawings, slips and publications.

My re-examination of his diaries and photograph albums together with some chance events have revealed new and undocumented aspects of the life of A.F.G. Kerr as detailed under four headings below.

### 1. Craniological collection

Parnell *et al.* (2014, 2015) and Jacobs (1962) give detailed accounts of the life and interests of Kerr. When compiling Parnell *et al.* (2014, 2015), I consulted the archives held in the Kew, including most of Kerr's diaries, photograph albums and notebooks and all of the archival material in the Herbarium of TCD. It was therefore to my complete astonishment that I discovered, by chance from a colleague sitting next to me at an official University function, that Kerr had accumulated and donated to the University, a small craniological collection that has, since about 1908, been held in its Anatomy Museum. The collection is closed to the public and has been only partly studied by DeArce and Gapert (2017).

As DeArce & Gapert (2017) point out craniological collections were accumulated in the 19th and early 20<sup>th</sup> C for a number of reasons including as part

of the phrenological movement of that time and to understand the history of the World's peoples. However distasteful, disrespectful or odd it may now appear, such activity was not then at all unusual. In fact, the entire collection of skulls in the Trinity College Dublin Anatomy museum is small by international standards (Le Musée de l'Homme in Paris had 15,000 skulls according to DeArce & Gapert (2017)) but nevertheless it is the largest in Ireland with over 500 skulls. Some of the skulls date back millennia, others are more recent, and they originate from all over the World, including Ireland. Of the 500 skulls, those collected by Kerr comprise only ten: eight of these are from Thailand, one from China and one from India. Some appear to date from 1902 but the majority are from 1908. The acquisition of this collection by Kerr is a mystery as there is no mention of it in Jacobs (1962), who met Kerr's children and, as far as I know, it is nowhere mentioned in Kerr's archives. One of Kerr's early diaries, that covering the period 1901–1906 (Ker/1/1), gives considerable detail of some of his early medical cases but there is no mention whatsoever of a collection of skulls or of accumulation of skulls. I would expect that such activity would be recorded as Kerr records almost everything in the medical field in which he was involved in huge detail. For example, some of the cases mentioned are illustrated (Fig. 1) and some are recorded in rather gruesome detail. For example, on 6 July 1901 Kerr writes: 'Yesterday evening Nai Shou was attacked by a drunken man with a sword at 6 p.m. The police were notified at midnight & patient was got to the police hospital about 2.30 a.m. this morning – he then had the following injuries. 1. A cut about 6 inches long horizontally across the middle of the front of the chest severing the sternum about the level of the manubrio-gladiolar junction, air was bubbling in and out of the wound every respiration, not frothed up with blood. 2. A cut across the right wrist joint nearly severing the hand from the arm.... 3. A cut about 6 inches long on the left side behind.... 4. An oblique cut about 2 inches long.... 5. A cut on the fingers of left hand...'. On this basis, it would be reasonable to expect this very detailed diary to contain an account of attempts to accumulate a collection of skulls, if any attempt had been made. The only mention of skulls in this diary is an entry that states 'Just close to our camp is a burial place in the jungle on the banks of the Meh Saut.

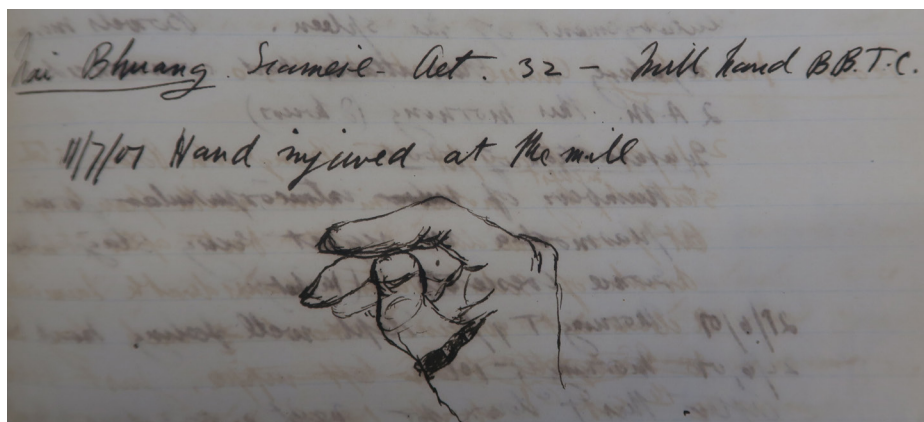


Figure 1. Drawing by A.F.G. Kerr of an injured hand from his diary Ker/1/1 held in the archives at Kew.

Lying in the ground was a fairly recent grave, which had been partially opened up by dogs, was a woman's skull with some wisps of long hair...'. The entry goes on to discuss measures put in place to prevent looting from the grave. On this basis I am certain that Kerr treated the remains with respect and did not remove the skull. His diary, Ker/1/7, that covers the period 22 October 1906–21 December 1908, also contains no mention of a collection of skulls. In general, it is clear that Kerr was a dedicated and compassionate medical practitioner whose caseload rapidly increased as he became better known (Jacobs, 1962). Equally, as far as is known Kerr never visited China (or only called in at its ports) and whilst his younger brother visited India there is no record of Kerr having done so. On the basis of all this evidence, admittedly some circumstantial, I consider it likely that Kerr did not, himself, actively accumulate the skulls and almost certainly received at least two of them from a third party.

Though this extraordinary find confirms the view expressed in Parnell *et al.* (2015) that further study of the life and archives of Kerr would yield very valuable historical information on a number of issues relating to the early history of Thailand, it is also clearly exceptionally sensitive in nature and not one that current generations, including myself, feel at all comfortable about. But I believe that it is important to bring it to light as it forms part of the picture of the man - the exquisitely dedicated botanist and Thaiophile, A.F.G. Kerr.

## 2. Material of historical interest

Secondly, as pointed out in Parnell *et al.* (2015), Kerr's photographs and notebooks contain material of considerable historical interest. My re-examination of the Kerr archives in Kew redrew my attention to Kerr's interest in history because of a remarkable example of the interdigitation of his diaries and photographs. On 6 January 1924 his diary (Ker/1/22) records that he visited 'Khao Panom Rung'. His photograph album (Ker/2/1/6) holds a few photographs of the temple complex (Fig. 2) but he also drew parts of it in great detail (Fig. 3) thereby providing an intimate view of this newly proposed World Heritage site long prior to its recent 17 year-long renovation.

Furthermore, my re-examination revealed another undocumented aspect of Kerr's interest in Thai culture as he also recorded folklore and travellers' tales in his diaries. For example, on 25 February 1923 he details the story of the rabbit and the crocodile (Ker/1/22) wherein a rabbit escapes being devoured by a crocodile that has already caught it in its mouth by getting the crocodile to say 'Ha' thereby opening its mouth and allowing the rabbit to jump out. On 29 March 1932 (Ker/1/28) records a number of travellers' tales including those of the Pisang Lao, that comes with a very strong wind and that eats men; the Phya Wai that is like a gibbon, comes with the wind and the rain and that also eats men; and the Pikawng Koi, that is as tall as a man's knee, has long hair coming down to its shoulders and eats crabs



Figure 2. Photographs by A.F.G. Kerr of 'Khao Panom Rung' taken on 6<sup>th</sup> January 1924. Extracted from his photograph album Ker/2/1/6 in Kew.

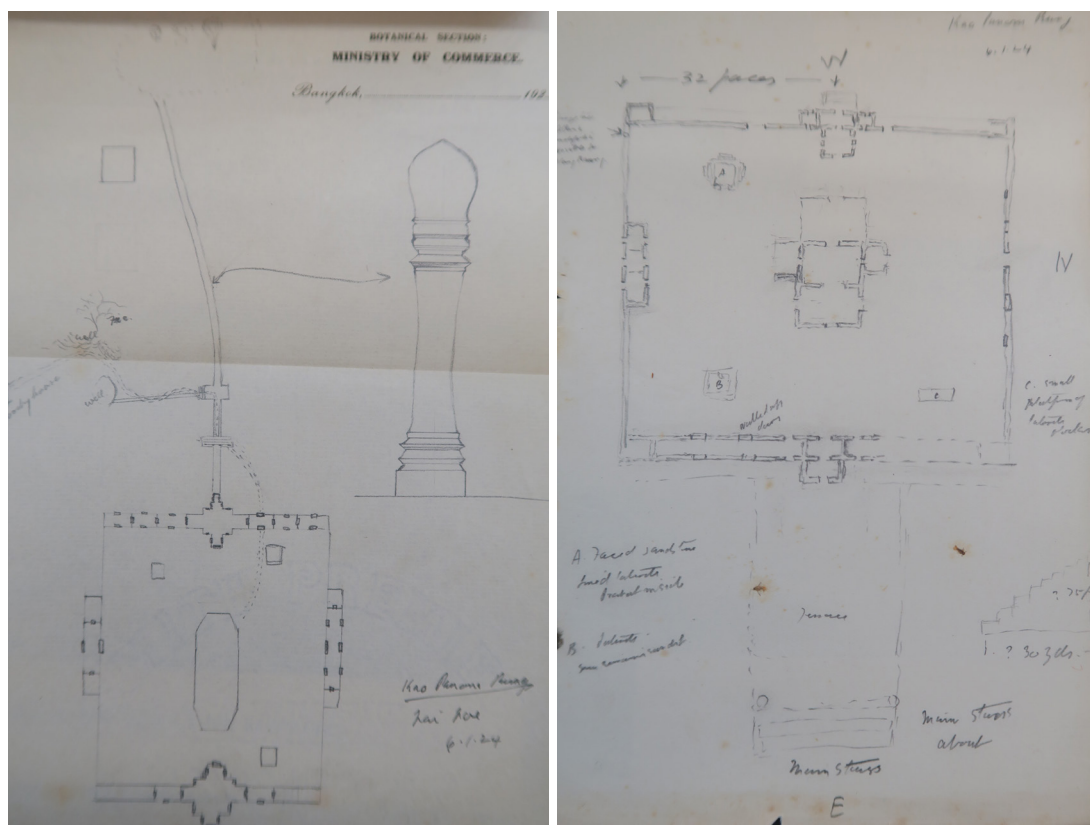


Figure 3. Drawings by A.F.G. Kerr of Khao Panom Rung' on 6<sup>th</sup> January 1924. Folded into his diary (Ker/1/22) in Kew.



and turtles. Finally, Kerr (Ker/1/23) outlines those rules of conduct that he can recall (he recalled 6 out of a total of 8) as follows: 'If a man wishes to be prosperous & happy there are eight rules he must obey according to the soothsayers. They are as far as I can remember as follows:

1. Wash the face and hands on rising in the morning; & before speaking to anyone
2. Eat facing the East
3. Defecate facing the West
- 4.
5. Do not go to bed in same clothes as worn during the day
6. Wife and husband must not sleep together in Wan Pra on a birthday
7. Wife on rising in morning must not cross any part of the husband's body and must not make a noise to awaken him.
8. '

These examples reinforce my view that there is a large amount of material in Kerr's diaries of non-botanical interest, that should be examined in detail by scholars in other disciplines than botany.

### 3. Modes of travel in Thailand and mapping of expeditions

Thirdly, as pointed in Parnell *et al.* (2015), Kerr was 'a very active, indeed almost unbelievably active, field botanist'. My recent examination of his diaries has also thrown further light on this aspect of his life. Jacobs (1962) indicates that Kerr used all sorts of conveyances on his expeditions, including motor cars, elephants, bullock carts and trains – in fact, all of these mechanisms are illustrated in Kerr's photograph albums (Fig. 4) and provide visual confirmation of Jacobs' (1962) list. Road and railway development, however, was minimal at that time. Due to the efforts of His Royal Highness Prince Purachatra Jayakara railway development preceded road development and Kerr's dairies confirm that he used the railways increasingly frequently. Nevertheless, the northern railway line only reached



Figure 4. Various contemporary photographs from A.F.G. Kerr's photograph albums illustrating some of his modes of transport. From top left to bottom right: Train crash (Ker/2/1/3); elephants (Ker/2/1/9); car (Ker/2/1/11); boat (Ker/2/1/7).

Phitsanulok in 1908, Lampang in 1916 and Chiang Mai in 1922. The completion of this line had a dramatic impact on journey times – reducing the time it took to reach Chiang Mai from Bangkok from 42 days to 26 hours (Subrahmanyam, 2013). Road development, however, remained minimal for almost all of Kerr's stay in Thailand (Fig. 4), indeed no public money was spent on roads until after 1932 (Wilson, 1983 as cited in Subrahmanyam, 2013). Therefore, despite a range of conveyance being eventually available to Kerr it is clear that for much of his time in Thailand he travelled on foot, often covering huge distances (in one trip walking 1,800 km (Jacobs, 1962)). As with most explorers of the time, it is also now clear that Kerr did not travel light or by himself in the field. His trips were always on a substantial scale, a scale that only increased as time went on, and a scale that demanded considerable logistic support of various types. For example, Kerr's diaries show that he made extensive use of ponies to transport material on his early expeditions (Ker/1/1 & Ker/1/2); this did not always work out well as the ponies were often unreliable. One of many potential extracts from his diaries dated 14 April 1904 (Ker/1/1) states that 'I dressed before 5 a.m. Six of the ponies have disappeared.... 5.30 a.m. no sign of ponies'. Why then did Kerr use ponies at all? I suspect that a major reason was cost as he used ponies at a time when his collecting expeditions were second to his main profession as a medical doctor and he was therefore not likely to have had income specifically designed to cover the cost of an expedition.

Certainly, Kerr was financially prudent throughout his time in Thailand as there are a number of entries scattered throughout his diaries detailing purchases and costs. His financial concerns, however, may have eased when he was appointed as Government Botanist. His salary, agreed on 16 July 1920 (Ker/1/4), was 'Tcs 1,500 per month rising to Tcs 1,800'. [Tcs stands for Tical(s) which was the term used by foreigners up until 1925 for the Thai Bhat (฿) (Chantaranothai, pers. comm.)]. From 1919 until 1923 the rate of exchange of the Baht was fixed against the British pound at ฿12 to the pound; therefore, Kerr's salary was equivalent to £125 per month rising to £150 per month; in 1923 the exchange rate fell to ฿11 to the British pound in 1923, and his monthly salary equivalent was £150 per month rising to £180 per month, which exchange rate lasted until Kerr left

Thailand for good in 1932 (Jacobs, 1962) [information on exchange rates from [https://en.wikipedia.org/wiki/Thai\\_baht](https://en.wikipedia.org/wiki/Thai_baht), accessed 19 February 2019]. His salary was substantial for that time and is indicative of the scale of resources made available to him as Government Botanist. These resources probably enabled his later expeditions to be of much greater scale than previously, with very large numbers of carriers (AKA porters) and elephants being employed. For example, 31 carriers were employed on 10 December 1924 (Ker/1/23) along with guides and path cutters. An entry from 21<sup>st</sup> December 1928 (Ker/1/26) laments the weakness and relatively high cost of the elephants saying 'they barely took four mens loads one elephant costs five men'. So, although the scale of the expeditions had become larger, some of the difficulties Kerr encountered earlier had not changed, as Kerr's later diaries also often lament the late arrival of the carriers delaying his departure.

As Parnell *et al.* (2015) pointed out, Kerr was able to construct detailed, accurate and precise maps of his expeditions. It is now clear to me that this accomplishment was facilitated by his keeping of incredibly detailed notes in his diary. For example, at one point he states: 'At 7.15 our direction S by E. At 7.35 crossed a small stream running W. At 7.53 our direction turned E round a small ravine then southwards again, by 8pm S.S.E. Here we met some pines, though we have been ascending gradually ~~we are not be~~ the height cannot be very great. At 8.20 our direction was E by S. At 8.30 reached highest point....' (Ker/1/1). To record, consistently, this level of detail in his diaries, whilst collecting plant material, drawing maps, taking photographs whilst moving at pace often on foot through difficult terrain is to me, and I suspect to all field botanists, an astonishing, if not awe-inspiring, feat.

#### 4. Distribution of living, herbarium and seed material

Finally, Dr H.-J. Esser informed me recently that Kerr sent living plant material to the Botanical Garden and Museum Berlin-Dahlem (B), then, as now, a centre of taxonomic expertise, where some was used by Hosseus in his description of *Richthofenia siamensis* Hosseus [see: <http://plants.jstor.org/stable/viewer/10.5555/al.ap.specimen.m0168847> – Figs. 5&6]. Parnell *et al.* (2015) had only been able to locate two destinations for Kerr's living plant collections

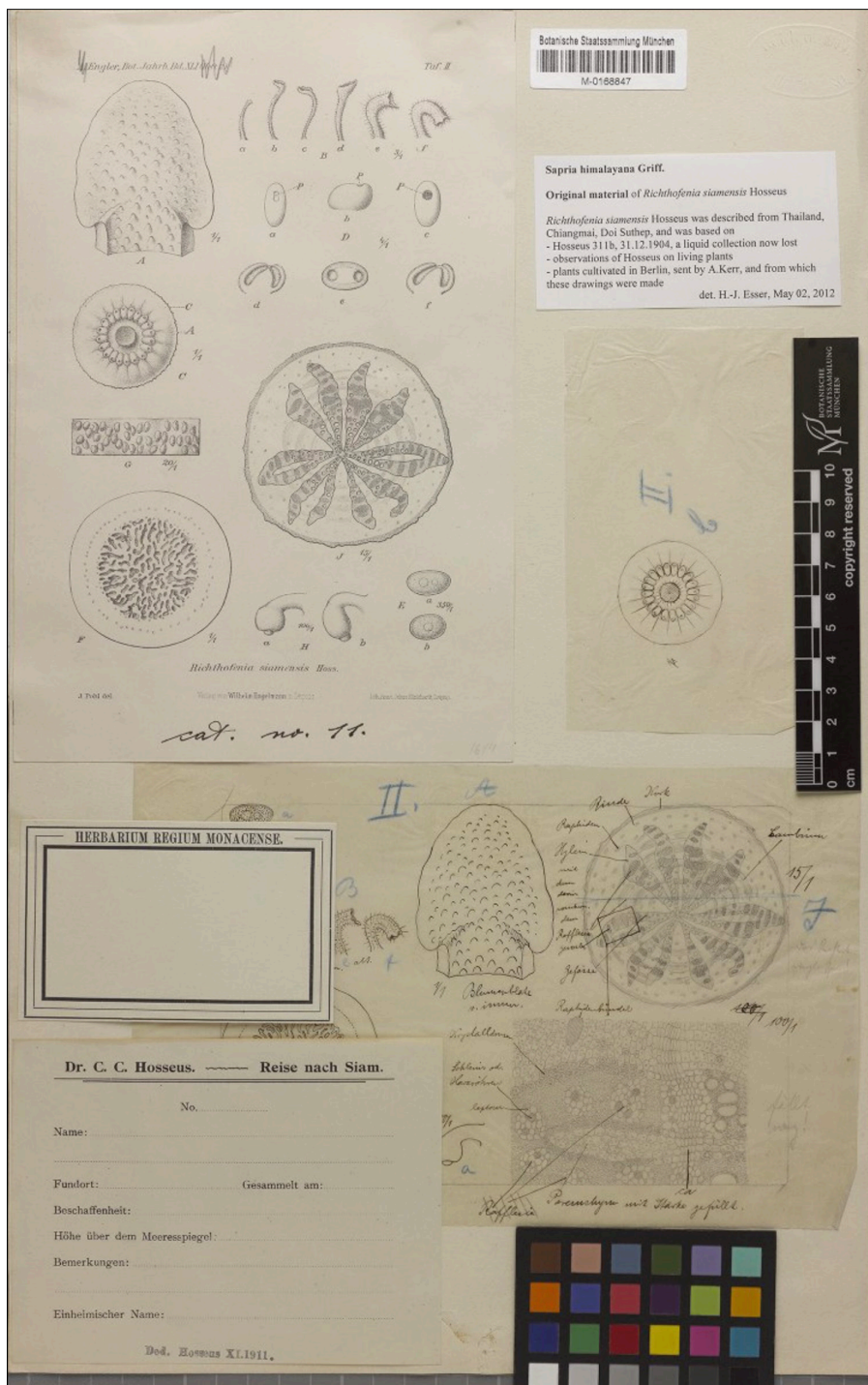


Figure 5. Image of drawings of the type specimen of *Richthofenia siamensis*: the original materials were thought to have been lost but are, in fact, still in extant – see Figure 6. Image from JSTOR Global plants.



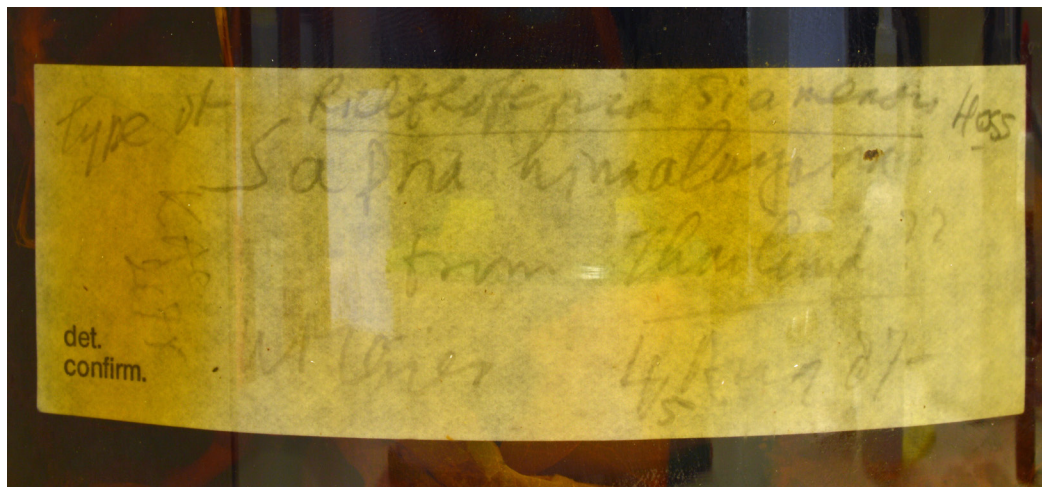


Figure 6. Image of the label, which is inside the jar, of the pickled type specimen of *Richthofenia siamensis*. Image provided courtesy of the herbarium B by Dr R. Vogt, Curator, see Figure 5.

–TCD and Aberdeen (ABD) – but Esser’s information and Vogt’s finding of relevant extant material indicates that a third destination should be added and raises the possibility that Kerr sent living material to other taxonomic centres than those so far known, that is to places other than TCD, ABD and B. Unfortunately, all original records concerning acquisitions at B were lost in the fire at the Botanical Museum in the Second World War (Vogt, pers. comm.), and therefore I have been unable to find out if any further living material was sent there or not. Unfortunately, my recent examination of his diaries in Kew has not provided any definitive evidence regarding his despatch of living material to any institute. Tantalisingly, however, in one of his diaries in Kew (Ker/1/5), Kerr states that he despatched orchids to Paris on 19 May 1933. Unfortunately, he does not indicate whether this was living material or not.

It is, however, clear from Kerr’s archive that the Botanic Gardens at TCD held a very large number of living ‘Siamese’ orchids (Ker/3/3/8) and were probably the chosen repository by Kerr for much of his living orchid collection. This is partly confirmed by letters from Otto Stapf (Ker/4/4 & Ker/4/5). In particular, one from Stapf dated 30 May 1924 to Kerr and the accompanying reply dated 29 June 1924 from Kerr concerns material that had been sent to TCD but which was obviously never sent to Kew.

Recent correspondence with Dr Robert Vogt, the Curator of B, has, however, revealed another

undocumented fact relating to Kerr: he also sent herbarium material to B. Examination of the annual reports of the Berlin Museum show that 348 Kerr specimens arrived in 1925–1926, 560 Kerr specimens arrived in 1932–1933 and a further 158 in 1938–1939 [see: <https://www.bgbm.org/en/annual-reports>]. In addition, Urban (1916) indicates that the museum had acquired 1,185 Kerr specimens by that date, making the minimal total holdings in B of Kerr specimens 2,251. This information makes clear that Kerr collected even more duplicates of his collections than previously believed. Unfortunately, most of Kerr’s specimens in B must be presumed to have been destroyed during the Second World War.

Finally, an entry in Kerr’s diary (Ker/1/3) indicates that Kerr sent a packet of seeds to H.H. Dixon (in Trinity College Dublin) on 6 February 1913. Therefore, in addition to all the other material Kerr distributed, seeds must also be added.

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