

The collecting activities of Anton Rehmann (1840-1917) in South Africa

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ABSTRACT

Anton Rehmann undertook two collecting expeditions in South Africa, in 1875-77 and 1879-80, during which he collected over 9 000 numbers. The latter journey took him as far north as the Houtbosch in Transvaal, where he was the first to make an extensive collection. A brief account is given of his life and his itineraries in South Africa with details, as far as can be ascertained, of his collecting localities.

INTRODUCTION

Since completing the note on Anton Rehmann for Botanical Exploration in southern Africa (Gunn & Codd, 1981), additional information has been found. At the cost of some duplication, this information is now presented.

None of Rehmann's diaries or plant registers has been traced so one must rely largely on plant specimens for information on his localities and the routes he followed. The main sources of information on his South African flowering plants are the two papers by Szyszylowicz (1887, 1888) and, to a lesser extent, citations of his specimens in revisions appearing in *Flora Capensis* from Vol. 4 onwards, and in other publications. His mosses were dealt with by Dixon & Gepp (1923) from which it is apparent that the numbering system he used for the mosses differs from his method of numbering the phanerogams and ferns.

LIFE HISTORY

Anton Rehmann was born on 13 May 1840 in Cracow (Kraków or Krakau) which is now in southern Poland, but was then in the Austro-Hungarian Empire in the province of Galicia, a region lying north of the Carpathian Mountains (Fig. 1). He died on 13 January 1917 in Lvov (or Lwów), previously known as Lemberg, situated in the eastern part of Galicia which, after World War II, was included in the Ukraine. No information on his family background has been discovered, but it is generally agreed that Rehmann is not a name of Polish origin, and that he was probably of German ancestry. The genus *Rehmannia* Libosch. is named after Joseph Rehmann (?-1831), a successful medical practitioner, who was born in Freiburg-im-Breisgau (Pritzel, 1871) and later emigrated to Russia, becoming one of the leading physicians at the court of St Petersburg. His slender link with botany rests on a small book which he wrote on Tibetan Pharmaceutics. Another Rehmann to appear briefly in botanical literature was A. (or E.) Rehmann who, in collaboration with F. Brunner, wrote: 'Gaea und Flora der Quellenbezirke der Dona und Wutach', given out by the Naturforschende Gesellschaft, Freiburg-im-Breisgau, 1851 (Catalogue of the Library of the British Museum, Nat. Hist.).

Our Anton Rehmann wrote in German and Polish with equal fluency. When he published articles in Polish he spelt his name with one 'n', but when writing in German he spelt it Rehmann. In an obituary written in Polish by Roupert (1917), his name is rendered as Antoni Rehman.



FIG. 1.—Anton Rehmann (1840-1917), by courtesy of the Hunt Institute for Botanical Documentation.

Rehmann showed an early interest in botany and must have been an enthusiastic collector because he started assembling a personal herbarium while still at high-school. In 1860 he attended the Jagiellonian University, Cracow, graduating in 1863. The following year, as assistant to Prof. Czerwiakowski, he obtained the Ph.D. degree. His first publication in 1862 dealt with the ferns and bryophytes of western Galicia, the region around Cracow, and in 1864 he expanded this into a more extensive geobotanical study, delineating the main vegetation zones of western Galicia and listing the bryophytes characteristic of each zone. In 1866-67 he studied in Munich, receiving his 'docent' degree, and returned to Cracow in 1868. Here he continued with his floristic studies of Galicia and the adjoining Bukovina, with particular reference to the flora of the Carpathian Mountains. In 1873 he published his

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first paper on *Hieracium*, a genus which was to occupy much of his attention in later years.

At the age of 35, and having done some travelling in central Europe, he embarked on the first of two lengthy expeditions in South Africa. After his first visit in 1875–77 he published a paper (Rehmann, 1879) entitled 'Geo-botanische stosunki poludniowej Afryki' (Phytogeographical conditions in South Africa), in which he included a map showing broad phytogeographical regions and indicating the route which he followed (Fig. 2).

his collecting localities are shown on the two maps which he published and the subject of his itineraries and collecting sites is discussed in some detail later.

In 1882 he was appointed Professor of Geography at Lemberg University and, although he paid some attention to the genus *Hieracium*, most of his time was devoted to geographical and ethnographical studies. His best known work was entitled 'Ziemie dawnej Polski i sasiednich krajow slowiaskich' (The land of ancient Poland and the neighbouring Slav regions), Lwów, I (1895), II (1904).



FIG. 2.—Route followed by Rehmann during his first visit 1875–77 (Rehmann, 1879).

On his second visit during 1879–80 he concentrated on the Transvaal, travelling as far north as the Houtbosch (Woodbush). Although he was not the first person to collect in this area, he was certainly the first to make a substantial collection. William Nelson preceded him in February–March 1878 and Canon William Greenstock gathered a few specimens when he visited the area in August 1875. On his return to Cracow he wrote 'Das Transvaal-Gebiet des südlichen Afrika in physikalisch-geographischer Beziehung' (Rehmann, 1883), including a map on which his routes are indicated. Unfortunately, our copy of the map is not clear enough for reproduction. It is based on Jeppe's map of 1879, portion of which is reproduced in Fig. 9, but lacks the minor localities. The article is disappointing in its lack of any botanical information. Not all

REHMANN'S PHANEROGAMS

Shortly after his appointment to Lemberg, Rehmann made his South African phanerogams available to Ritter Ignacy (Ignaz) von Szyszylowicz (1857–1910), who also graduated from the Jagiellonian University, Cracow and, after further study in Germany, worked in the Natural History Museum, Vienna, from 1885 to about 1891. He later became head of the Experimental Station for Agricultural Botany at Lemberg (Lwów) and extraordinary Professor of Botany at the University. Szyszylowicz (Figs 3 & 4) started writing up Rehmann's plants for publication but, after two parts had appeared (1887, 1888), there seems to have been some disagreement between the two because all the plants were returned to Rehmann, who sold them to Schinz of Zurich (according to a letter dated May 1889 from

N. E. Brown to MacOwan, part of which is reproduced in Fig. 5).



FIG. 3.—Ignacy von Szyszyłowicz (1857–1910), by courtesy of the Hunt Institute for Botanical Documentation.

Dr Sching has been here for two weeks working out some of his plants, & has just left. He desired me to send you his kindest regards. I like him very much indeed, as he appears to be a thoroughly genuine man. Dr Szyszyłowicz has also been here for two days, his real name he pronounces Sheshelovics. I understand that he will publish no more of Rehmann's plants; I fancy there was some misunderstanding between them. Dr Sching tells me that Rehmann had all his collection back & that he (Dr Sching) has purchased them, & will continue the descriptions of them himself.

I suppose you are busy preparing the next centuries of the Herb. Novon? Well, don't be in a hurry about it, as I have plenty of work for the summer, but of course I shall attend to them as soon as I can when they come to hand.

With very kind regards, believe me
Very sincerely yours
N. E. Brown

FIG. 5.—Part of a letter dated May 1889 from N. E. Brown to MacOwan.

(rubber stamp). The absence of a specific collecting date on each label is an unfortunate omission. Apart from not providing an indication of the time of year at which a plant was collected, the only clue to the sequence of Rehmann's collecting activities is the number on the label, a subject which is discussed in some detail later.

Herrn Dr S. Schönland
freundschaftlich
L. Veihes
POLYPETALAE DISCIFLORAE
REHMANNIANAE

FIG. 4.—An example of Szyszyłowicz's handwriting.

From the two publications by Szyszyłowicz it is possible to obtain some idea of the magnitude of Rehmann's collection and of the routes which he followed. Szyszyłowicz listed about 1 073 Rehmann specimens, which were included in 421 species. The highest collecting number noted was 9067, which would indicate that Rehmann probably collected well over 3 000 species. The lowest number cited was No. 141, *Empleurum serrulatum* Ait., from 'Outeniqua Mts: Montagu Pass'. The numbers and associated localities are listed in detail at the end of the present paper, but the sequence derived from Szyszyłowicz, according to provinces, may be summarized as follows: Cape Province 141–3 233, O.F.S. 3 351–4 006, Transvaal 4 083–6 837, Natal 6 883–9 067.

His specimens, with a few exceptions mentioned below, bear a standard printed label (Fig. 6): 'Dr. A. REHMANN: Exsiccata Africae austr. ex ann. 1875–1880'. On the label there is also a number (hand-written), the province (printed) and locality

Dr. A. REHMANN: Rec. 2/83
Exsiccata Africae austr. ex ann. 1875–1880
No 490 *Melthania aquata* H. & A.
M. ferruginea Szyszl. n. sp. R. & S.
Transvaal.
MAKAPANSBERGE
Streydsport

FIG. 6.—Standard label on Rehmann's phanerogam and fern specimens.

80. Natal: auf Trone.
neu, steinig, begrast
Hügel 5 engl. m. west.
lich von New Castle,
bei einem Fenne, sehr
Vorne ist mit Lavas.
stück kann. (Kleinsten) *Zantedeschia*
der Name in meine
büchsen enthalten?

Dr. A.
Exsiccata Africae s

FIG. 7.—Temporary label on a Rehmann specimen, the type number of *Zantedeschia rehmannii*, in Z.

When Rehmann returned to Cracow in 1880, Engler was working on revisions of the Araceae, Anacardiaceae and Burseraceae, the last two for the series of De Candolle's *Monographiae phanerogamarum*. Probably at the request of Engler, who was then at Breslau University, Rehmann quickly packed off material of these three families to him. The *Zantedeschia* specimens, which were examined some years ago (see Letty in *Bothalia* 11: 11, 18, 25; 1973), bear labels which differ from the standard kind with numbers in a different series. The fact that two specimens (83 and 7096), obviously duplicates of one gathering, bore different numbers and localities indicates they were sent off in haste; probably the sheet labelled 83 was sent to Engler and the sheet labelled 7096 was kept back and received its label later. Engler apparently retained some duplicates (e.g. No. 82), but the majority were returned to Rehmann. The specimens of *Zantedeschia* in Zurich, which Rehmann sent to Engler, are listed below. The labels were written by Rehmann, but the determinations are usually in Engler's handwriting (Fig. 7).

72. *Z. macrocarpa* Engl.?: Natal, Laingsnek.
 80. *Z. rehmannii* Engl.: Natal, New Castle.
 82. *Z. macrocarpa* Engl.: Transvaal, Trigardsfontein.
 83. *Z. macrocarpa* Engl. (*sic*): Transvaal, Trigardsfontein.
 Although labelled Trigardsfontein, this locality appears to be wrong. Another sheet in Z, obviously a duplicate of the sheet No. 83, has a standard label with the number 7096 and the rubber-stamped locality 'Drakensberge, Biggarsberge' on it. The specimens are of leaves only, but they are recognizable as *Z. albomaculata* subsp. *valida* Letty, which is known only from the Biggarsberg area.
 92. *Z. aethiopica* (L.) Spreng.: Transvaal, Houtbosch.
 93, 94. *Z. albomaculata* forma *latifolia* Engl.: Transvaal, Houtbosch.

Not only do the above numbers differ from the standard series, but they run in the reverse order, from Natal to the Transvaal, not *vice versa*. The number 7096 fits in with the numbering of other plants in the series finally adopted (see later). It is apparent that Rehmann gave his specimens their final numbers after returning from his second visit and not in the field.

At the end of his second expedition, Rehmann called on Medley Wood and obtained some duplicates from him, including mosses, a group in which Rehmann was particularly interested. He then stopped off in Cape Town for a week or two during his return voyage and there is a note in Harry Bolus's diary that Rehmann visited him on 16 and 23 May 1880. On the latter occasion Bolus handed over McLea's entire moss collection to Rehmann on the understanding that Rehmann would keep a set and return the remainder, named and numbered, together with a set of his own Cape mosses. Rehmann also undertook to let Bolus have a set of

his Transvaal flowering plants in return for a parcel of Bolus's duplicates.

While in Vienna, Szyszylowicz had access to rich holdings of South African Herbarium material. So, in addition to citing specimens of other collectors, such as Wood, Bolus, MacOwan and Tyson, which could have been acquired by Rehmann, he records having seen specimens collected by Ecklon and Zeyher, Drège, Scholl, Krauss, Gueinzus, Cooper, Baur, Weale and Spilhaus.

REHMANN'S MOSSES

Information on Rehmann's mosses is derived mainly from Dixon & Gepp (1923) whose work was based on the material at K and BM, supplemented by a manuscript list drawn up by T. R. Sim from the sets of Rehmann mosses which he had seen in South African herbaria. These sets were acquired by Bolus, MacOwan and Medley Wood, and are now in BOL, GRA and NH, respectively. None of the sets is complete and there is not a great deal of duplication, suggesting that one fairly full set was divided between the three herbaria. The Rehmann material in Sim's personal herbarium, now in PRE, consists of fragments derived from the specimens in BOL and GRA. Strangely enough, there is no direct evidence that Sim consulted the NH material.

The Rehmann specimens were first classified into genera, species and varieties before numbering, and the numbers run from 1 to 680. There were, however, more gatherings than this because, if a species or variety was collected at more than one locality, the additional gatherings were labelled with b, c etc., so that 665, 665b and 665c represent three different gatherings of the same species. Sim's MS list accounted for about 500 of the 680 numbers and Dixon & Gepp filled in many of the gaps from K and BM material, leaving about 50 numbers unaccounted for.

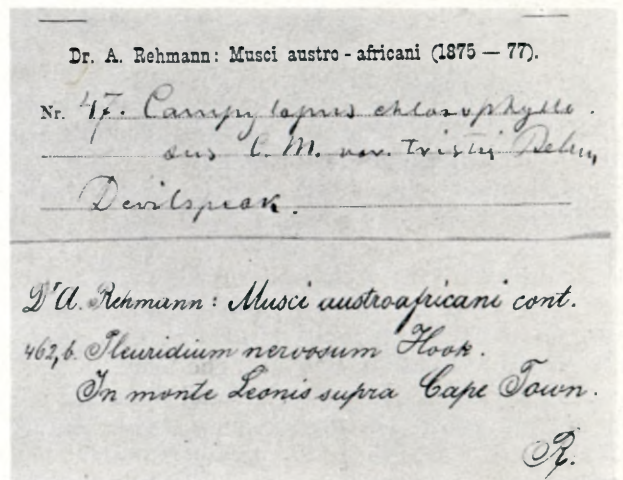


Fig. 8.—Examples of Rehmann's moss labels, the upper one (first distribution) in Rehmann's handwriting.

Rehmann evidently issued his South African mosses in two series, the first shortly after his return in 1877 (there is a note in MacOwan's diary, which is in PRE, that he received a set in August 1878), and

the second series in or before 1886. The first series consisted of Nos 1–423 (or 424, which is a blank) and the second of Nos 425 (or 424)–680. Whereas all the specimens in the first series were collected by Rehmann, considerably less than half the specimens in the second series were collected by him. A rough count revealed that about 159 of the latter were collected by McLea, 20 by Medley Wood, 3 by MacOwan, 3 by Buchanan and 1 by Drège. Rehmann attached many provisional new names to items he considered were new species or varieties, but never published any of them.

According to Urban (1916, p.124), Rehmann's extensive moss herbarium, which included material from all over the world gathered by various collectors, was acquired by Berlin-Dahlem in November 1892. It was reputed to contain 2 800 South African specimens (about 500 species) among which were many novelties. Many of the latter were described by C. Müller in *Hedwigia* 38: 52–155 (1899). Dixon & Gepp (1923) drew attention to discrepancies in Müller's method of numbering Rehmann specimens: he sometimes cited a "Musci austro-africani" number which corresponds with Dixon & Gepp's list, sometimes Rehmann's collecting number as 'Rehm. coll.' and sometimes no number at all. Unfortunately this valuable material was almost entirely destroyed during World War II so it is not possible to determine if the erratic numbering was due to Rehmann or to Müller — probably the former. It is a great pity that Dixon & Gepp did not extend their study to include the Berlin material because they might have been able to throw some light on these discrepancies. The 'Rehm. coll.' numbers do not fit in with the series allocated to flowering plants collected at the same localities as the mosses.

REHMANN COLLECTING LOCALITIES

As previously mentioned, the main outline of Rehmann's routes may be deduced from the two maps which he published (1879, 1883). However, these maps do not show all his collecting sites, many of which are obscure. Problems in locating these sites arise largely because (a) he often used his own phonetic spelling, e.g. 'Vildshill' for Fields Hill; (b) some of the farm or local names which he used are difficult to trace or have disappeared from use; (c) due to his system of numbering specimens (or due to carelessness), some localities may be listed out of the correct sequence of his itineraries; (d) he sometimes used the farmer's name, the spelling of which may be open to question; and (e) spelling mistakes were introduced by botanical authors, such as Szyszyłowicz (1887, 1888) and Engler (1883). Engler was particularly liable to distort locality names, e.g. Hantbosch, Kentbosch (for Houtbosch), Klippau (Klippan), Glandsriver (Elands River) etc.

In the absence of dates on his specimens, the only clue to the sequence of his collecting localities is provided by the numbers on his flowering plant and fern labels. However, it is apparent that he numbered his specimens in series after his return from his second visit, starting with the Cape Province and continuing with the Orange Free State,

then Transvaal and finally Natal. This sequence ignores the fact that his collecting in the Transvaal took place only during his second visit, whereas the route between Ladysmith and Durban was traversed on three occasions: once during his first visit and twice during his second. It is also known that he spent a week or two in and around Cape Town on his final return voyage, when he again collected mosses and probably flowering plants as well. Certain parts of South Africa were, therefore, visited on more than one occasion, months or years apart, but this is not evident from his rotation numbers.

According to his plant numbers, it would seem that he first made a short excursion from Knysna to Montagu Pass and back. The lowest number seen is 28 (*Disa sagittalis* in Fl. Cap. 5,3: 240) from Outeniqua Mountains, where he collected over 300 numbers. Presumably he took a boat from Cape Town to Knysna and back but, in the absence of recorded dates, this could equally well have been done at the end of his first tour as at the beginning. He then collected around Cape Town (Nos 573–2219) before leaving by ox-wagon for Tulbagh, Ceres and Worcester, and then across the Karoo to Beaufort West, Victoria West, Hopetown and Kimberley. Turning eastward, he passed through Bloemfontein, touched at the Korannaberg and reached the Caledon River near the Witteberg (north of Ficksburg) before proceeding to Bethlehem. From here his plant numbers jump to Pretoria (Nos 4018–4747), whereas the route he followed on his first visit took him from Bethlehem to Van Reenens Pass, Ladysmith, Pietermaritzburg and Durban.

On his second visit in 1879–80 he landed at Durban and travelled to Van Reenens Pass from where he made a wide sweep to Heilbron, crossed the Vaal probably at Lindeques Drift (near the present Vereeniging), kept to the east of the Witwatersrand and arrived in Pretoria probably in October 1879. There is no record of plants being collected in the eastern Orange Free State between Van Reenens Pass and Pretoria during this journey, suggesting that he may have travelled by stage coach (or, at any rate, not independently with his own transport) on this occasion.

From Pretoria, in addition to the main north road to Warmbaths, Nylstroom and Potgietersrus, there were two north-eastern wagon routes which kept to the east of the Waterberg plateau. One of these, the more easterly route, went through Derdepoort and Kameelpoort and crossed the Elands River at about Wyedrif. The other branched off at Hammanskraal, kept to the north of the Elands River and joined the eastern route at Dronkfontein (see Fig. 9), a locality feared by early travellers because of the prevalence of lions. It is apparent that Rehmann travelled along both these routes but which one on the outward and which one on the return journey is not indicated. From Dronkfontein the road crossed the Springbok Flats, where surface water was scarce, one of the most reliable perennial sources being at Klippan, situated near the present Grass Valley (Grasvallei). From here the route went through the area occupied by Chief Zebedeli's people and through Strydpoort



FIG. 9.—Part of Jeppe's 1: 850 000 map (London, 1879).

in the Makapaansberge to Marabastad (near the present Pietersburg). Here Rehmann turned eastward to the Houtbosch, where the forests were soon to be exploited for the growing village of Pretoria and, shortly after this, for the goldfields of the Witwatersrand.

The condition of the vegetation at Houtbosch must have been so favourable that Rehmann spent some time here, collecting about 1 000 numbers (5557–6518). He then returned to Pretoria and the next number seen was from Donkerhoek (6522), east of Pretoria on his way back to the Natal border via Standerton. His Natal numbers run from 6878–6935 at Coldstream (near Charlestown) to 7161–7181 at Colenso, after which he inserted Van Reenens Pass (visited during his first expedition) with numbers 7200–7281, before continuing to Mooi River (then known as Westown), Pietermaritzburg and Durban, the highest number seen, 9067, being recorded from Verulam.

When his localities are thus arranged according to his serial numbers, occasional discrepancies in the geographical sequence become apparent. The case

of Van Reenens Pass has been mentioned, but certain other cases may be due to carelessness or because he took alternative routes between certain places. For example, *Ceres* occurs twice, firstly as 'Ceres Distr.: Michelspass' with numbers 2332–2347, appropriately placed between Bainskloof (2288–2328) and 'Worcester: Brandvley' (2376–2392), and secondly as 'Bokkeveld: Ceres' (3055–3095), between several Karoo localities and Beaufort West. Another discrepancy may be noted in the Orange Free State where specimens from the Korannaberg (4000–4006) are numbered after instead of before the Witteberg (3947–3992).

Doubts arising from these inconsistencies add to the difficulty in trying to locate some of Rehmann's obscure or misspelt collecting sites. Accurate dates on the specimens would have been of some assistance in verifying the sequence, but the only known case of a date being recorded on a specimen was one cited by Dixon & Gepp (1923, p.221). Moss No. 485, which is a repetition, under a different name, of No. 279, was collected 'in cavernis montium Witteberge supra Kadziberg, ad rupes. m. Aprili 1876'.

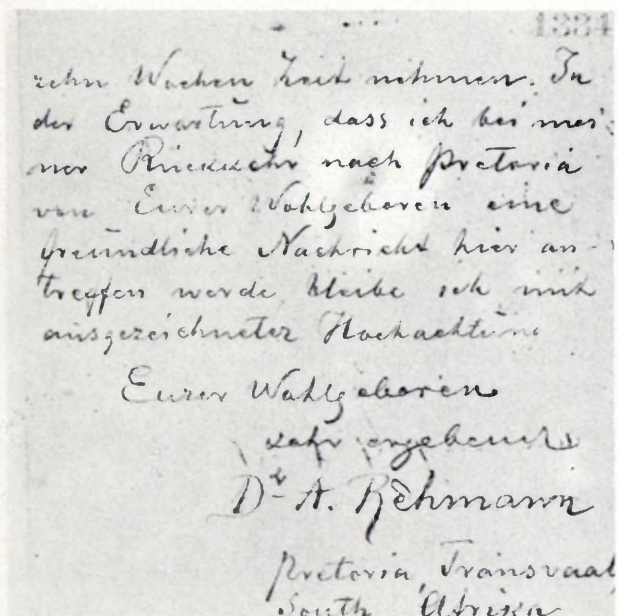


FIG. 10.—Part of a letter from Rehmann to Kew, dated in Pretoria 1 12. 1879, by courtesy of the Director, Royal Botanic Gardens, Kew.

With regard to the second expedition, there is a letter from Rehmann preserved in the library of the Royal Botanic Gardens, Kew, dated in Pretoria 1. XII. 1879 (Fig. 10). In it he states that he had already spent seven weeks in Pretoria and had collected 500 phanerogams and 200 lichens (c. 4 000 specimens). He planned to leave two days later for the north 'über Zoutpansberge an den Limpopofluss'. His journey, of course, terminated at the Houtbosch. As already noted, in May 1880 he was in Cape Town on his return journey to Europe. The next letter received at Kew was written (in reasonably good English!) from Cracow dated 8 August 1880.

An interesting point which emerges from this correspondence is that in January 1878, shortly after his return from the first expedition, Rehmann wrote to Kew offering moss exsiccata for sale and saying that he had given up the idea of a second visit to Africa. He considered that more would be gained by going to India, Ceylon, Malaya and Borneo. He enquired if Kew would be prepared to provide some subvention, in which case he would collect living plants as well, but apparently Kew replied in the negative. The next letter to Kew was the one from Pretoria in which enquiries about financial support were repeated in order to allow him to travel from Durban to Mauritius and Madagascar before returning to Europe. Again one must assume that the response was negative because in May 1880 he was in Cape Town, where Bolus noted in his diary that he had made a loan of £24 to Rehmann.

A useful source for finding old place names is Jeppe's 1:850 000 map (London, 1879), a portion of which is reproduced in Fig. 9. Some of Rehmann's obscure Transvaal localities, such as Minaarsfarm, Neu Halle, McCabe's Vlei and Porter are shown on this map whereas others, such as Kleinsmit and Page's Hotel have still not been traced. Some localities, such as 'Axallsfarm' in the Hex River

Valley, may be impossible to find at this stage, especially as the farmer's name is probably spelt wrongly. Reference may be made to Fig. 7 which shows the temporary label which he sent with his No. 80 to Engler, on which the locality is given as '5 eng. M. westlich van New Castle bei einem Farmer dessen Namen ich nicht herausfinden kann. Vielleicht ist der Name in meinen Reisebüchern enthalten?' This locality was later rendered from his standard labels for Nos 7024–7052 as 'Arnoldsfarm' and 'Arndolfsfarm' (in Szyszylowicz 1887, 1888), whereas the farmer in question was probably Adendorff, whose descendants still farm near Newcastle. This raises a question regarding the reliability of his travel diary.

Certain differences may be noted between his moss labels and those for his phanerogams and ferns, with the moss labels usually having more information, in the form of a habitat note, than is found on the flowering plant and fern labels. There are also occasional differences in the presentation of locality information. For example 'Natal: Drakensberg Van Reenenspass' is recorded on flowering plant labels, whereas on mosses it is rendered as 'Natal: Kwatlamba ad Van Reenen's Pass'. Kwatlamba or Quatlamba was the original native name for the Drakensberg range. On the specimens collected in the Woodbush area of the Transvaal, the flowering plants bear simply the locality 'Houtbosch', whereas on the moss labels more details are given, such as 'mont. Lechlabo ad Houtbosch', 'Lechlabo supra locum Mamabolo' and 'Lechlabo, Snellskop'. Lechlabo appears to be the range also referred to as Houtboschberg, on which Schneleskop, at over 2 000 m above sea level, is the highest peak, and which separates the source of the Letaba River from the Broederstroom (Rehmann 1883, p. 376). Rehmann no doubt made his headquarters at the Berlin Mission Station which was established on this range at Mphome in 1878 (Fig. 11). In February 1894 Rudolph Schlechter also visited the Station and shortly afterwards, in 1896, it was moved to a lower and more congenial site at Krantzenstein, near the present Houtboschdorp.

In the list of Rehmann collecting sites in Table 1, the place names are first given as they are spelt on the labels or in literature. These are followed, where necessary, by the present-day spellings and locations mainly according to Southern African Place Names by Leistner & Morris (1976). In certain cases farm names have been found on the Trig. Survey 1: 250 000 Topocadastral series and these are indicated by (TC). The collecting numbers refer only to phanerogams and ferns and were derived from various literature sources. The numbers for mosses are not listed, because they convey no information on the sequence of localities in the route followed.

As mentioned earlier, Rehmann's personal set of African phanerogams and ferns is in Z. Good sets are also in BM, BOL, BR and K. The types of some species described by Engler may be in B, for example *Zantedeschia macrocarpa* Engl., though no material of *Z. rehmannii* Engl. appears to have been retained by him. According to 'The history of the collections contained in the Natural History Depart-



FIG. 11.—Ruins of the Mphome Mission Station, Houtboschberg, taken in 1956.

TABLE 1.—Rehmann's collecting numbers with the localities as spelt by Rehmann, the present day spelling, occasional notes and the grid reference

Collecting numbers	Region, 'district' or province	Collecting locality as spelt by Rehmann	Collecting locality as spelt today with notes	Grid reference
28—340 (also mosses)	Outeniqua Mountains	Montagu Pass		3322CD
354—367 (also mosses)	Knysna District	Portland	7 km NW of Knysna	3322DD
398—478 (also mosses)	do	Belveder	Belvidere, the home of Capt. T.H. Duthie	3422BB
486—504 (also mosses)	do	Esternek, Esterneck	Probably a corruption of Yzernek, 5 km NE of Knysna	3323CC
mosses only	do	In silvis Knysnae		
555—563 (also mosses)	George Town District	Oakfort	Probably should be Oakhurst, the residence of the Dumbletons, about 25 km E of George. W.D. Dumbleton sent a <i>Gladious</i> specimen to Kew in 1870 which was named <i>G. splendens</i> Bak.	3322DD
mosses only	do	Blanco		3322CD
mosses only	do	Towriver	Touw (or Touws) River enters the sea near the Wilderness at Fairy Knowe, where W.D. Dumbleton also had a property	3322DC
573—840 (also mosses)	Promontorium Bonae Spei	in monte Tabulari	Table Mountain	3318CD
977—1175 (also mosses)	do	in monte Diaboli	Devils Peak	3318CD
1118—1382 (also mosses)	do	Cape Town, Stinkwater	Blinkwater	3318CD
1412—1553	do	Cape Town and Cape Flats		3318DC/ 3418BA
mosses only	do	Lionshead and Greenpoint		3318CD
1588—1603 (also mosses)	do	Camps Bay		3318CD
1609—1632 (also mosses)	do	Hout Bay		3418AB
1650—1729 (also mosses)	do	Rondebosch		3318CD
mosses only	do	Newlands and Clermont	Claremont	3318CD

TABLE 1. Continued

Collecting numbers	Region, 'district' or province	Collecting locality as spelt by Rehmann	Collecting locality as spelt today with notes	Grid reference
1829—2219	do	Cape Flats		3318DC/ 3418BA
2238—2256	Drakenstein Berge	Tulbagh		3319AC
2267	do	Klapmuth	Probably should be Klapmuts	3318DD
2270 (also mosses)	do	Wellington		3318DB
2288—2328	do	Bainskloof		3319CA
2332—2347	Ceres District	Michelsspass	Michells Pass	3319AD
2376—2433	Worcester District	Brandvley, Brandvaley	Brandvlei	3319CB
2451—2590 (also mosses)	do	In montibus supra Worcester		3319CB
2711—2729 (also mosses)	Hexriverberge	Axallsfarm, Axellsfarm	Not found	probably 3319DA
2772—2776	Worcester District	Hexrivervalley, Groote Tafelberg	It is not certain which Tafelberg is meant as there are several possibilities. The most likely is one shown on old maps which appears to be near the Oliviersberg but this is not in the Hex River Valley. If his sequence is correct it would be a mountain near Verkeerde Vlei, which would point to the Bonteberg	3320CD 3319BD
2833—2852	Karoo	Verkeerde Valley	Verkeerde Vlei	3319BD
2910—2952	do	Witteberge, Maggfontein	Probably Matjiesfontein but this again would be out of sequence	3320BA
2975—2994	Koup	Flakkraal	Probably the farm Vlakkraal (TC) just north of Prince Albert Road. The Koup (from the Hottentot word for the abdominal fat of the ox) is the arid, barren area south of the Nuweveldberg and west of Beaufort West, and is the upper catchment of the Dwyka and Gamka Rivers	3221DC
3003—3014 and 3050	Karoo	Grootfontein	Probably the farm Grootfontein (TC) on which Koup railway station is now situated	3321AB
3034	do	Potatosriver	Also Patatsrivier	3320AB
3033, 3041	do	Draaikop	Probably Driekop, near Potatos River	3320AB
3055—3095	Bokkeveld	Ceres	It will be noted that the geographical sequence is erratic between Nos 2332 and 3131 probably because he made two journeys, along different routes, between Ceres and Matjiesfontein (see Fig. 2)	3319AD
mosses only	do	Lionsfontein	Probably the farm Leeuwfontein (TC), 22 km NE of Ceres	3319AD
mosses only	Karoo	ad rip. flum. Gamkoo	Gamka River. His route would have met the Gamka River south of Fraserburg Road	3221DD

TABLE 1. Continued

Collecting numbers	Region, 'district' or province	Collecting locality as spelt by Rehmann	Collecting locality as spelt today with notes	Grid reference
3131—3157	Roggeveld	Beaufort	Beaufort West	3222BC
3177—3178	do	Rhenosterkop	Renosterkop	3222BB
3180—3185	do	Korlanskloof	This is no doubt the farm Courlands Kloof (TC), just to the W of Nelspoort	3222BB
3198—3205	do	inter Salt- et Brakriver	This covers a distance of over 100 km on the road between Nelspoort and about 25 km N of Victoria West	3222BB/ 3123AA
3219	do	Victoria	Victoria West	3123AC
3220—3223	do	Hopetown		2924CA
3243—3269	do	Rietpoort	Probably the farm Rietpoort (TC), on the Brak River 25 km N of Victoria West though this is out of sequence	3123AA
3279—3281	do	Kopisdam, Kapisdam	Probably a corruption of Koppiesdam. There are several farms with this name (or variations of it) not far from Rehmann's route, e.g. Koppies Dam ca. 18 km W of Strydenburg Koppesdam ca. 42 km E of Hopetown (2924CB) and Koppies Dam 20 km SW of Kimberley (2824DC). The last-mentioned seems the most likely but it is out of sequence	(2923CD)
3346—3355	Griqualand West	Eitalersfontein	No such place can be found	
3380—3394	do	Hünernestkloof	Heuningneskloof	2924BA
3407—3428	do	Junction	This probably refers to the junction of the Modder and Riet Rivers	2924BA 2824DB
3433—3470	do	Kimberley		2824DD
3483—3538	Orange Free State	Olifantsfontein	The farm Olifantsfontein (TC), 16 km SE of Kimberley	
3544—3567	do	Kanonfontein	Not found	
3573—3610	do	Mudriverdrift	No doubt where the Kimberley-Bloemfontein road crosses the Modder River ca. 45 km SE of Kimberley	2825CC
3622—3676	do	Drainfontein	Could be a corruption of Draaifontein but, even so, no place name resembling this has been found along Rehmann's route in the O.F.S.	
3688—3735	do	Rietfontein	Probably the farm Rietfontein (TC), 7 km E of Petrusburg	2925AB
3762—3906 (also mosses)	do	Bloemfontein		2926AA
mosses only	do	Molmonspruit	Moolmansspruit	2827DD
3947	do	Witteberge ad Caledonriver		2828CA
3981—3999 (also mosses)	do	Witteberge, Kadzi-berg.	No doubt this is the Catjasberg (also spelt Katjesberg) about 6 km E of Generaalsnek and near to the Caledon River. It is on the dividing line between grid 2828CA and 2828CC	

TABLE 1. Continued

Collecting numbers	Region, 'district' or province	Collecting locality as spelt by Rehmann	Collecting locality as spelt today with notes	Grid reference
4000—4006	do	Korannaberg		2827CD
mosses only	do	Liebenbergsvley	Liebenbergsvlei, near Bethlehem	2828AB
mosses only	do	Bethlehem		2828AB
4018—42	Transvaal	Pretoria, Aapiespoort	This is the area now referred to as the Fountains Valley	2528CA
4341—4382	do	Pretoria, colles supra Aapiesriver	Hills above Apies River	2528CA
4471—4590	do	Pretoria, Wonderboompoort		2528CA
4627—4698	do	Pretoria, Kuduspoort	Koedoespoort	2528CB
4706—4747	do	Pretoria		2528CA
4759	do	Bosh Veld, Buchenhouts Kloof Spruit	Boekenhoutskloof. If the number is correct (Fl. Cap. 4,2:436) it is out of geographical sequence	2528CB
4784	do	Pretoria, Derde Poort		2528CB
4790	do	Bosh Veld, Pinaasriver	Piensaars River	2528CB
4801—4822	do	Bosh Veld, inter Kameelpoort et Elandsriver		2528BB
4825—4829	do	Bosh Veld, Kameelpoort		2528BD
4835—4844	do	Elandsriver, Kleinsmit	Not located.	Probably 2528BB
4851—4882	do	Bosh Veld, Menaarsfarm	See Fig. 9. Carl Minnaar's farm was evidently a recognized stopping place on the 'eastern' road to the north across the Springbok Flats. Baines (1877) places it about 26 km NE of Pretoria. It will be noted that the geographical sequence between Nos 4759 and 4999 is rather erratic, possibly because Rehmann travelled through twice, on his outward and homeward journeys	2528CB
4883—4913	do	Bosh Veld, Elandsriver, Neu Halle	Just north of Skilpadfontein in Mabaan's Location (see Fig. 9)	2528BB
4931—4999	do	Bosh Veld, Elandsriver and drift		2528BB
s.n.	do	Bosh Veld, McCabe's Vley	See Fig. 9. Near the railway siding McCabes Vlei. The name is no doubt derived from the nearby farm Makeepsvley 1134 (TC)	2429CC
5015—5154	do	Bosh Veld, inter Elandsriver et Klippan		2528BB/ 2429CB
5201—5369	do	Bosh Veld, Klippan	Situated on the farm Doornpoort 520 (TC) adjoining the farm Grass Valley (Grasvallei) This was a fairly reliable source of water on the old wagon road across the Springbok Flats	2429CB
5374—5556	do	Makapansberge, Streydpoort	Strydpoort, N. of Zebediela	2429AB

TABLE 1. *Continued*

Collecting numbers	Region, 'district' or province	Collecting locality as spelt by Rehmann	Collecting locality as spelt today with notes	Grid reference
5557—6518	do	Houtbosh	Houtboschberg At that time the Berlin Mission Station was situated on the farm Mphome 1906 (TC)	2329DD
mosses only	do	In mont. Lechlabo ad Houtbosh	Houtboschberg	2329DD
mosses only	do	In mont. Lechlabo supra Mamabolo	Houtboschberg, adjoining Mamabolo's Location	2329DD
mosses only	do	Lechlabo, Snells-kop	Schneleskop is the highest point on the Houtboschberg	2329DD
6522—6552	do	Hogge Veld, Doukershoek	Donkerhoek, Donkerpoort 30 km E of Pretoria	2528CD
6571—6678	do	Hogge Veld, Bronkerspruit, Bronkerspruit	Bronkhorstspuit	2528DC
6584	do	Hogge Veld, Wilgeriv. ad Porter	See Fig. 9	2528DD
6597—6658	do	Hogge Veld, inter Porter et Trigardsfontein.		2528DD/ 2629AC
6670—6731	do	Hogge Veld, Trichardsfontein	Now Trichardt, situated on the farm Trigardsfontein (TC)	2629AC
6735—6781	do	Hogge Veld, inter Trichardsfontein et Standerton		2629AC/ 2629CC
6788—6827	do	Hogge Veld, Standerton	Standerton	2629CC
6837—6842	do	Hogge Veld, Perdekopberg	Perdekop	2729BA
6847—6864	do	Hogge Veld, Pages Hôtel	Not located.	Probably 2729BA
6869—6870	do	Hogge Veld, Sandspruit		2729BD
6878—6935	Natal	Drakensberg, Goldstream, Coldstream	Coldstream, 2 km N of Charles-town	2729BD
6939—6961	do	Drakensberg, Laingsnek		2729BD
mosses only	do	In mont. Kwatlamba ad Laingsnek	Drakensberg, Laingsnek	2729BD
mosses only	do	Kwatlamba, Madziuba	Drakensberg, Majuba	2729BD
6962—7009	do	Drakensberg, Mountainprospect	Mt Prospect	2729DB
7016	do	Drakensberg, Ingagane	(Fl. Cap. 5, 1:242). There is a stream by this name in grid 2829CA, but this area was not visited by Rehmann. It is probable that Ingogo (2729DB) was intended	
7029—7052	do	Drakensberg, Arnoldsfarm, Arnoldsfarm, New Castle	8 km W of Newcastle (see Fig. 7). The farmer referred to was probably Adendorff, whose descendants still farm near Newcastle	2729DD
7053—7116	do	Drakensberg, Biggarsberg		2829BB
7126—7136 (also mosses)	do	Ladysmith		2829BB
7161—7181	do	Drakensberg, Tugelariver, Colenso		2829DB
7200—7281	do	Drakensberg, Van Reenenspass		2829AD
mosses only	do	In montibus Kwatlamba ad Van Reenen's Pass		2829AD

TABLE 1. Continued

Collecting numbers	Region, 'district' or province	Collecting locality as spelt by Rehmann	Collecting locality as spelt today with notes	Grid reference
7297—7323	do	Griffingshill, East-court.	Griffins Hill Estcourt	2929BB
7348—7352	do	Westtown, Mooiriver	Mooi River, previously known as Westtown	2929BB
7359—7404 (also mosses)	do	Karkloof		2930AC
7429—7442	do	Umgeni ad catarrhactam	Umgeni or Howick Falls	2930AC
mosses only	do	Umgeni supra Maritzburg	Probably Howick	2930AC
7491—7612	do	Maritzburg	Pietermaritzburg	2930CB
7640—7650	do	Umsondusriver	Umsunduze (Umsundusi) River	2930CB
7659—7683	do	Farkkop	Probably Vaalkop, shown on old maps near Camperdown	2930DA
7690—7803	do	Camperdown		2930DA
7871—7938 (also mosses)	do	Intschanga, Inczanga	Inchanga	2930DA
7991—8032 (also mosses)	do	Vildshill, Pinetown	Fields Hill	2930DD
8033—8072	do	Inter Pintown et Umbilo	Pinetown	2930DD
8090—8170	do	Umbilo ad catarrhactam		2930DD
8173—8404 (also mosses)	do	Inanda		2930DB
8428—8544 (also mosses)	do	Oakfort, Umhloti-river	Oakford, shown on old maps on the Umdloti (Umhloti) River, about 12 km from the sea. Medley Wood also collected here (see Fl. Cap. 5,1:50)	2931CA
8580—9057	do	Durban and Umgeni		2931CC
9064—9067	do	Verulam		2931CA

ments of the British Museum', London (1904), 2 176 phanerogams specimens and 1 293 cryptogams were purchased from Rehmann by the British Museum between 1881 and 1890. The Kew set, according to Jackson (1901), includes specimens from South Africa and Europe and consists of over 2 887 specimens acquired between 1878 and 1898. It is known from the correspondence preserved at Kew that an offer of 500–600 South African mosses was received from Rehmann in January 1878, while the receipt of 1766 phanerogams was acknowledged in 1882. There is a list of the latter at Kew in N. E. Brown's handwriting but unfortunately no localities are recorded. The Kew moss herbarium has, of course, been transferred to BM. There are about 800 Rehmann phanerogams in BR, between Nos 1 and 2 100, acquired towards the end of the 19th or beginning of the 20th century. Types of grasses described by Hackel, including several Rehmann specimens, were seen in W by Schweickerdt when he studied the genus *Aristida* for his revision in *Bothalia* 4: 91–175 (1941), but no reply regarding their present holdings has been received. It is, however, known that they have a specimen of *Greyia radlkoferi* Szyszyl., annotated by Szyszylowicz and presumably the holotype, and they may have others.

He is commemorated in the moss genus *Rehmaniella* C. Müll. and in a great many species names, including *Triaspis rehmannii* Szyszyl., *Ochna rehmannii* Szyszyl., *Rhus rehmanniana* Engl., *Commiphora rehmannii* Engl., *Acacia rehmanniana* Schinz., *Coleus rehmannii* Briq., *Plectranthus rehmannii* Gürke, *Stachys rehmannii* Skan, *Selago rehmannii* Rolfe etc.

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UITTREKSEL

Anton Rehmann het gedurende die jare 1875–77 en 1879–80 twee versamelingstogte orderneem. In dié tydperk het hy meer as 9 000 nommers versamel. Met die laaste reis het hy so ver noord as Houtbosch in Transvaal gevorder, waar hy die eerste was om 'n ekstensiewe versameling te maak. 'n Kort verslag oor sy lewe en reisplanne in Suid-Afrika word gegee, met besonderhede van versamelingslokaliteite waar moontlik.

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* Efforts have been made to establish the dates with greater precision, but it has not been possible to establish more than the years of publication.