

PLANT COLLECTORS IN WEST PAKISTAN AND KASHMIR

By

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Our knowledge of the plants of Kashmir and West Pakistan is due to the work of hundreds of collectors beginning with Moorcroft in Ladak in 1820. Citizens of many nations have had a share in the enterprise and the majority have not been professional botanists. The collectors have been military men, tourists, mountaineers, surveyors, explorers, missionaries, college professors, forestry officers and British civil servants as well as a few members of the Botanical Survey of India and their trained local collectors. Most of the early work was done by foreigners and only for the last few years have local botanists begun to play a leading role in the task.

The collections, unfortunately for Pakistani botanists, are scattered in dozens of foreign countries which is making the preparation of a comprehensive flora for our region a very difficult one. We have no National Herbarium to which one can go for information and the most important collections are in Calcutta, Dchra Dun and London. Good systematic work requires a good library and this has not yet been provided.

As I have tried to find out who the collectors were, where their collections are stored, the size of the collections, what they have written or what others have written about them and other relevant matters I have found that much information is hard to locate. In the Journal of the Bombay Natural History Society, Burkill (1954, 1956, 1963) has brought together a great deal of material about the history of Botany in India up to 1900 but his account is more useful for those working on Indian Botany than for those primarily interested in Pakistan and Kashmir.

Many of our collectors were unusual people who made remarkable trips into out of the way places when there was not much law and order. A few lost their lives in accidents or by disease and two or three were murdered. There are still a few places along the Afghan Frontier where it is not safe for botanists to enter. The largest such area is the region between the Kurram Valley, which is fairly well known, and the Khyber Pass and again the mountainous area from the Khyber Pass to Dir. The plants of Chitral, in contrast, are quite well known as are those of Swat and much of the Gilgit Agency and Baltistan.

A few collectors, always with local aid, accumulated large and important collections of up to 30,000 numbers. Many have sent less than a hundred to be preserved in an important Herbarium where they are available for study by those doing monographic work, studying plant distribution, variations, etc. It is a sinful waste to go into some

out of the way place, find some interesting specimens and deposit them in an obscure place where they will never be seen or used. Many of Royle's plants were deposited in a pharmaceutical collection in Liverpool and were lost for nearly a hundred years and when they were found many were in poor condition. Many of Griffith's and Falconer's specimens were ruined through neglect. This has been happening in recent years in Pakistan. I have known more than one collection which has been ruined by damp, beetles and even rodents. When possible, duplicates should be collected and at least one set deposited in the Herbarium at Kew or the British Museum where they will be used at least until such time as we have a National Herbarium in Pakistan.

Ahmad, Dr. Sultan, Gov't. College, Lahore. His chief interest has been the fungi but he has also done a great deal of work on sedges and grasses. For the Lahore District Flora he prepared the section on the sedges and grasses and with R. R. Stewart wrote the Grass Flora of West Pakistan. He has collected in Baluchistan, the Punjab, Swat, Hazara, etc. Specimens chiefly in Lahore, some at Rawalpindi and Kew.

Aitchison, Dr. J. E. T. (1836-1898), Bengal Medical Service. He collected extensively on the Afghan frontier, in the Punjab, including the Salt Range; in Kashmir, Ladak, etc. He published a list of the plants of the Kurram Valley, of Jhelum District and of those found while he was working on the Afghan Boundary Delimitation Commission. He collected in Rawalpindi in 1872. His specimens are at Kew, Dehra Dun, Calcutta, etc.

Alcock, Surgeon Capt. Alfred William, (b. 1859). Author of "Report on the Scientific Results of the Pamir Boundary Commission", 1898, Calcutta.

Ali, Asghar. Pb. University. Formerly of Gov't. College, Quetta and the Lawrence College, Murree. Some of his specimens are at Gordon College.

Ali, Dr. Syed Irtifa, Karachi University, specialist on the Leguminosae and author of a number of important papers on various genera. At present he is monographing the family as represented in our area. His specimens are in Karachi with some duplicates at Kew and Rawalpindi.

Appleton, Henry, Lt-Col., Royal Engineers, collected in Baluchistan, c. 1884. Specimens at Kew and Poona.

Atkinson, William Sackston, entomologist, (d. 1878 or 9). Collected in Kashmir, and many of his specimens reached Kew through C. B. Clarke.

Badhwar, R. L. and Kapoor, L. D. have done much collecting in Kashmir and their specimens are at the Regional Research Laboratory, Jammu.

Bamber, C. J. Author of "Plants of the Punjab, a Descriptive Key to the Flora of the Punjab, North-West Frontier Province and Kashmir", Lahore, 1916.

Barbour, Major J. H. (?T. H.) of the R.A.M.C. Collected in the Kashmir Valley in 1922. Plants in the B. M.

Barrett, Col. Sir Arthur A. Collected in Hazara and Chitral, c. 1900-5. Specimens at Kew.

Bashir, Raja. Collected in Gilgit in 1961. Plants at Gordon College.

Beg, Dr. Abdur Rahman. Pakistan Forest Institute, Peshawar and formerly of Gordon College collected with me in Swat and with M. A. Siddiqi in Chitral. He has also collected in the N.-W. F. P. Specimens at Gordon College, Kew and no doubt in Peshawar.

Bellew, Surj. Major, Henry Walter, (1834-1892), Bengal Staff Corps, was surgeon on the Second Forsythe Mission to Turkestan in 1874. He collected in Murree, Ladak and probably elsewhere. Plants at Kew.

Biddulph, Major J. Collected in Gilgit 1879-81. Specimens at Dehra Dun and Calcutta. I noticed one at Kew.

Birdwood, Herbert Mills (1837-1907), wrote on the vegetation of Sind in the Journal of the Bombay Nat. Hist. Soc. Vol. 16, p. 172 ff. 1908.

Bis Ram, Punjab University. Collected in the Salt Range c. 1910. Some specimens in the Arnold Arboretum, U.S.A.

Blatter, Ethelbert, S. J. (1877-1934), St. Xaviers College, Bombay. Collected extensively in Sind and Waziristan. Many of his papers are published in the Journal of the B.N.H.S. His largest work is "Beautiful Flowers of Kashmir" in two vols. published in London in 1928 and based largely on the collections of Prof. F. Hallberg. Collections chiefly in Bombay. Some are at Kew.

Blatter, E., Mc Cann, Charles & Sabnis, T. S. joint authors of "Flora of the Indus Delta". Jour, Ind. Bot. Soc. in pts., 1927-9 and "Flora of the Indian Desert", JBNHS, in pts. 1918-21.

Blatter, E., Hallberg, F. & Mc Cann, Charles, joint authors of "Contribution toward a Flora of Baluchistan" JIBS, 1920.

Blatter, E. & Fernandes, Joseph, joint authors of "Flora of Waziristan" JBNHS in pts. 1933-35. (Sabnis, Mc Cann, Hallberg and Fernandes accompanied Father Blatter at various times on his collecting trips. Most of their specimens are at Bombay but some are at Kew.

Bor, Dr. Norman Loftus (b. 1893), Indian Forest Service and more recently Asst. Director of the Royal Botanical Gardens, Kew and author of "Grasses of Burma, Ceylon, India and Pakistan" 1960. He made large collections in Lahul and the Eastern Himalayas which are at Kew and Dehra Dun.

Bosshard, W. and Trinkler. Collected in Ladak while on the German Central Asian Expedition of 1927-8. The botanical results were published in Fedde's Repertorium, Vol. 31 (1932). Plants in Vienna.

Bowes-Lyon, S.A. Collected in Chitral in 1958. His specimens are in the British Museum and Edinburgh.

Brandis, Sir Dietrich (1824-1907), Inspector-General of Forests and author of *Indian Trees*, London, 1911. Collected in Kashmir, Ladak, Baltistan, etc. Plants in Calcutta, Dehra Dun and Kew.

Bruhl, Paulus Johannes (b. 1855), Indian Forest Service, visited Gilgit in 1892. Specimens at Calcutta. Specialised in the *Ranunculaceae*.

Burkill, Isaac Henry (1870-1964⁵), Indian Forest Service, collected in Sind and Baluchistan and is the author of "A working List of the Plants of Baluchistan, Calcutta, 1909. His notes on the history of Systematic Botany in India and his lists of the older Indian botanists with reviews of their work are to be found in recent numbers of the *Journal of the Bombay Nat. Hist. Soc.* Specimens in Calcutta, Kew and New York.

Burt, Miss C. C. collected in Kashmir and her specimens are in the B. M.

Burt, Brian L. (b. 1913), of the Royal Botanic Garden, Edinburgh spent the year 1958, collecting in the Punjab, Hazara and the N.-W. F. P. His specimens are in Peshawar, Edinburgh and some in Rawalpindi.

Calciati, Dr. C. and Koncza, Dr. M. accompanied the Bullock Workman Expedition to the Hispar Glacier region in 1908. The plants obtained were studied at Kew and went to Fribourg in Switzerland. In 1911 Calciati returned to the Karakorum and collected in the Hushe and Kondus valleys. In 1914 he published "Esplorazione della valli Kondus e Hushee nel Karakorum Sud-Orientale", *Boll. Reale Soc. Geogr.* ser. 5, 3:995-1014; 1076-1085.

Cattell, Dr. W., Surgeon 10th Hussars, F.L.S. in India c. 1871-80. Collected in Murree and Afghanistan.

Chand, Thakur Rup, now of the University of Michigan Herbarium, accompanied Walter N. Koelz on almost all of his trips in the N.-W. Himalaya, Afghanistan, Iran and Assam. Specimens in Washington, Michigan, Kew, etc.

Chand, Ami, Kashmir Forest Service c. 1930-40. A few of his specimens are at Kew. Others may be at Dehra Dun.

Chaudhri, I. I. of the Univ. of Baghdad and formerly of the Pakistan Forest Institute and the Univ. of Sind accompanied Dr. Wendelbo of the Norwegian Tirich Mir Expedition of 1950 to Chitral. He also collected in various places in W. Pakistan especially in Sind. Some of his specimens are in Rawalpindi.

b. 1923

Chaudhry, Dr. Shaukat Ali of the Lyallpur Agri. University and formerly of Gordon College has collected in Hazara, on the Frontier, Gilgit, etc. Specimens in Rawalpindi and Lyallpur.

Chopra, R. N., Kashmir Regional Research Laboratory, has collected widely in Kashmir often with K. L. Kapoor. Specimens in Jammu.

Clarke, Charles Baron (1842-1906), was in India from 1866-1887. He began as a lecturer in the Presidency College, Calcutta but soon joined the Indian Botanical Department and accumulated a herbarium of 30,000 numbers. Between 1876 and 1879 he collected in Kashmir, Baltistan and probably Gilgit. His Karakorum specimens are not localised. Large sets of his specimens are at Kew, the B. M., Calcutta, Dehra Dun, Leningrad, etc. After leaving India he became a member of the staff at Kew and collaborated with Sir Joseph Hooker in preparing a number of families for the Flora of British India. He did a great deal of important work on the *Compositae*, *Cyperaceae* and ferns.

Clifford, Major R. C. of the I.M.S. collected in the Shaksgam Valley with Kenneth Mason of the Survey of India in 1926. Plants at Kew.

Collett, Gen. Sir Henry (1836-1901). Author of "Flora Simlensis" 1902. He collected in Afghanistan, the Kurram Valley, and elsewhere on the Frontier. Specimens at Kew, Calcutta, Dehra Dun and Vienna.

Conway, Sir W. Martin (b. 1856?). Author of "Climbing and Exploring the Karakorum Himalayas" 1902. His book contains maps and a plant list. He collected in Baltistan and the Gilgit Agency. Specimens at Kew.

Cooke, Theodore (1836-1910). Author of "Flora of the Bombay Presidency, including Sind", 1908. His plants are at Kew and Dehra Dun. Others are in Michigan and Missouri U.S.A.

Coventry, Bernard Okes (d. 1929), Indian Forest Service and author of "Wild Flowers of Kashmir", 3 vols, 1923-30, London. Specimens at Kew and probably at Dehra Dun.

Crookshank, Henry and **Miss Helen**. While on a geological survey in 1952 father and daughter collected about 500 numbers in Upper Baluchistan. Collection at Kew.

Culbert, R. C. in 1957 collected c. 150 specimens around Mt. Haramosh in Kashmir. He was killed in a climbing accident in the Karakorum. Plants in the B. M.

Dainelli, Giotto & Marinelli, Prof. O. Italian explorers collected in Rupshu and Zanskar. They were with de Filippi in 1914. Their specimens went to Italy and were determined by Pampanini. See Pampanini, R., Flora del Caracorum, Bologna, 1930.

Dalzell, N. A. author of a "Bombay Flora" in 1861 with Alex. Gibson. Some of his Sind collections are at Kew, others at Calcutta, Dehra Dun and Vienna. 187-187E

Davidson, Col. was one of the officers who collected plants on the Chitral Relief Expedition of 1895. Specimens at Kew.

Deane, Lt. Col. Sir Harold A., I.C.S (1847-1924). Collected in Peshawar, Hazara and the Murree Hills, especially at Nathia Gali. Collection at Kew of about 1,400 specimens.

Deasy, W. H. P. & Pike, Arnold entered Tibet by the Lanak La in 1896. They were together in 1896 and in 1897-8 Deasy collected alone. Specimens at the B. M.

de Filippi, Dr. Filippo, botanist for the Duke of Abruzzi, collected in the Karakorum in 1909 and 1913-14. Specimens are probably in Balogna.

Desio, Ardito, an Italian, made a small collection of plants in the Hindu Kush in 1953-54. His specimens were named by Williams and are in the B. M.

de Terra, Hellmut and Hutchinson G. E. of Cambridge made a small collection of plants in Eastern Ladak c. 1932 which is preserved in the N. Y. Botanical Garden.

Dickason, Dr. Frederick G., formerly of Gordon College, Rawalpindi and later at Judson College, Rangoon and author of the "Ferns of Burma". Collected in the Murree Hills and Kashmir in 1927-28 with R. R. Stewart. His collection is in the Univ. of Michigan, Ann Arbor.

Dick-Peddie, Dr. W. A. of the New Mexico State College of Agriculture taught in the Sind Agri. College, Tando Jam, for two years c. 1955-6. He collected in Sind and Baluchistan with Dr. J. J. Norris. If not finished by insects his main collection is in Tando Jam. Some duplicates are at Gordon College and at Kew.

Din, Prof. Hassan-ud, retired from the Islamia College, Peshawar, collected in the N.-W. F. P., Hazara, Chitral, etc. His private collection is in Peshawar. Some duplicates are in Rawalpindi.

Douie, M., I.C.S. made a collection of plants in Hazara c. 1910 which is preserved at Kew.

Douglas, Justice Wm.O., U. S. Supreme Court, made a small collection of plants in Rupshu which is preserved at the Smithsonian in Washington.

Drummond, James Ramsay (1851-1921). Dy. Commissioner & Sessions Judge, was a keen amateur botanist and made a large collection from the Salt Range, Shahpur Dt., S. E. Punjab, Simla Hills, etc., with the help of local collectors. His main collection is at Kew. A set used to be at Lyallpur; others are in Berlin, the B. M., Calcutta, Paris, etc.

Duke, Dr. Oliver T. (fl. 1876-1894), with **Dr. H. Hamilton** collected plants in Baluchistan between 1877 and 1880 which were sent to Calcutta and used by **Burkill** in his book.

Duthie, John Firminger (1845-1922), Supt. of the Saharanpur Bot. Garden and later at Dehra Dun when the Herbarium was transferred there. He collected widely himself and he also employed native collectors, the best known being **Inayat Khan** and **Harsukh**. Their collections are in his numbered series and it is often difficult to determine whether **Duthie** or one of his collectors actually found a specimen. This is also the case with the large collections of **Falconer**, **Clarke**, **Drummond** and others. The specimens of a number of the members of the **Gordon College** staff are in my numbered series. **Duthie** seems to be the only person to have acquired specimens from **Tirah** and from the **Black Mt.** area of **Hazara**. I do not know whether he made these collections himself or not. He is the author of the "Flora of the Upper Gangetic Plain and of the adjacent **Siwalik** and **Sub-Himalayan tracts**", 1903-11. Many thousands of his specimens are at **Kew**, **Dehra Dun**, **Calcutta**, **Leningrad**, etc., and many of his duplicates are at **Gordon College**.

Dutt, Sarin & Chopra, I. C. are authors of a paper on the "Vegetation of **Srinagar, Kashmir** in *Proc. Nat. Inst. Ind. Sci.*, Vol. 30, Aug. 1964. Specimens are in **Jammu**.

Edgeworth, Wm. Pakenham (1812-1881), **Bengal Civil Service** and half brother of the novelist, **Maria Edgeworth** was in **Multan** as early as 1850. He is the author of "Flora **Mallica**" (**Multan**) in the *Journ. and Proc. Linn. Soc. Bot.* 6:179-210. 1862. 5,000 of his sheets are at **Oxford**, others at **Kew** and **Geneva**.

Egerton, Mrs. R. made a collection in **Baluchistan** in 1890 which is preserved at **Kew**.

Elliott, E. A. was an early collector in **Baluchistan**, 1891-1894. Plants at **Kew** and **Calcutta**.

Eyre, Gen. V., discovered *Astragalus pyrrotrichus* at **Attock** in 1840-1.

Fairservice, W. A. made a collection of plants from **Baluchistan** in 1930 which is in **New York**.

Falconer, Hugh (1808-1865), Supt., **Saharanpur Botanical Garden**, 1832-1847 was a first class paleontologist and made important collections of mammalian fossils from the **Siwaliks**. He was also a good botanical collector and was the first to collect in many out of the way places in the inner **Himalaya**. His large collection lay neglected for many years in **India House** and when it was rescued by **Sir Joseph Hooker** much of it was useless. He collected in **Hazara**, **Baltistan**, **Ladak** and **Kashmir** from 1836-1838. What remains of his collection cannot be fully used even now as no one has translated most

of the Hindi and Urdu labels on his sheets which were evidently written by barely literate helpers. This is too bad as later collectors have been given the credit for discoveries really made by him or his collectors. Many specimens at Kew, Calcutta, Dehra Dun, Leiden, etc.

Fernandes, Joseph, collected in Waziristan in 1927 and 1930 with Blatter. Plants in Bombay. See "List of mosses" in Journ. Ind. Bot. Soc. 10:145. 1931.

Fleming, Dr. Andrew, the geologist who mapped the Salt Range also collected, many plants there and in the Murree Hills, c. 1850, His specimens are at Kew and are signed A.Fl.

Flower-Ellis, J. G. K. collected in Kashmir and his plants are in the B. M.

Francis, Harry S., member of the Harvard Karakorum Expedition of 1955 collected a few plants which are listed in Grady Webster's paper on the Flora of the Hushe Valley in the Pakistan Journal of Forestry, 1965.

Frere, Sir Henry Bartle, Commissioner of Sind c. 1850-57, collected both in Sind and Baluchistan. A few specimens are in Kew.

Fuller, G. L. de la C, Indian Forest Service, author of "List of Trees and Shrubs and useful Herbe of the Jammu and Kashmir Forests, Allahabad, 1913. Specimens at Kew and Calcutta.

Fuller, Joseph Bamfylde, Supt., Saharanpur Botanic Garden, collected in Kashmir and Gilgit. Plants at Kew and Dehra Dun.

Gamble, James Sykes (1846/7-1925), I.F.S. and author of the "Flora of Madras" 1918 did some collecting in the Punjab and Baluchistan but as in so many other cases his chief work was elsewhere. His main collection of 50,000 specimens is at Kew but duplicates are in Calcutta, Dehra Dun, Berlin, Leiden, etc.

Gammie, George Alexander, Ind. Bot. Surv., Cinchona specialist, collected in Kashmir in 1891 and 1893. He was also in Dras in 1893. His plants are at Kew, Calcutta, Dehra Dun and many other herbaria. Like those of Deane and several others his specimens are not numbered making citation more difficult

Gatacre, Genl W., Commander of the Chitral Relief Expedition of 1895. His collection, together with others made by a number of his officers, were all sent to Duthie who published a consolidated list of the species found in the Records Bot. Surv. Ind. in 1898. Plants at Dehra Dun.

Gentry, Dr. Howard Scott, (b. 1903). of the U. S. Deptt, of Agriculture has collected on our N. W. Frontier c. 1953 as well as in Iran and Afghanistan. Plants in Washington,

Giles, Dr. G. M. J. of the Indian Army collected widely in the Gilgit, Chitral, Astor and Wakhan (Afghan) areas from 1885-1887. Specimens at Kew, Calcutta, Berlin and Leningrad.

Gilli, Alex., collector in Iran and Afghanistan, seems to have visited the Karakorum. See Fedde, *Report*, 61:86, 1958. Plants in Vienna.

Godwin-Austen, Capt. H. H., Survey of India; in the Karakorum, 1857-60 found *Pinus excelsa* at Rondu in Baltistan. Some specimens at Kew.

Gollan, W., Bot. Surv. Western Ind, collected for Duthie in Kashmir in 1893. Specimens at Kew, Dehra Dun, Berlin, New York., etc.

Griffith, A. L. published "The Vegetation of the Thar desert of Sind in the Indian Forester, 72:307-9, 1946. If he made a collection it should be in Dehra Dun.

Griffith, Wm. (1810-1845), Supt., of the Calcutta Botanical Garden was the first to report on the botany of Sind, Baluchistan and much of Afghanistan where he collected during the first Afghan War assisted by other officers. He was with the Army from Dec. 1838 to Dec. 1840. His route was from Shikarpur in Sind, through the Bolan Pass and then into Afghanistan. He accumulated a large collection which was in part destroyed by neglect in India House. He was unusually capable and it is a great pity that his early death prevented him from attending to his collections. He left Afghanistan by the Khyber Pass where again he was the first collector. His itinerary is to be found in his "Posthumous papers printed in Calcutta in 1848. His death seems to have been due to hepatitis following malaria. His specimens are at Calcutta, Kew, Madras, Ceylon, Cambridge, etc.

Hallberg, Prof. P.F., St. Xavier's College, Bombay (d. 1924), collected in Kashmir for Father Blatter in 1921. I met him while he was collecting in Sonamarg in the Sind Valley. His specimens are in Bombay and Goteborg, Sweden. d. 1924

Hamilton, Major, H. (later Lt. Col.), collected in Chitral in 1895. He is probably the Hamilton who collected with Duke in Quetta in 1876. Specimens at Dehra Dun and probably in Calcutta.

Hanif, M., collected in the Quetta area c. 1953. Specimens are in Rawalpindi.

Hare, Capt. E. C. (of the I.M.S. ?) collected in the Samana Range and on the Safed Koh above the Kurram Valley of the N.-W. F. P. in 1898. Plants at Kew and the Arnold Arboretum.

Harlan, J. R., collected grasses in Murree and Swat in 1960. His specimens are at Kew and Washington.

Harriss, S. A., Surj. Lt. on Chitral Relief Expedition of 1895 collected that year and again in 1899. His plants are in Duthie's number series. A large set of his gatherings are at Kew and others at Dehra Dun, Calcutta, Berlin and Leningrad.

Harsukh, Hindu collector for Duthie, made valuable collections in Baluchistan, Waziristan, Peshawar and the Kurram Valley in 1894-9. His plants are at Kew Dehra Dun, Calcutta, Leningrad, etc.

Hartmann, Hans, ecologist of Basel, Switzerland collected in the Baltoro area in the Central Karakorum range in 1962. I saw his collection while he was naming it at Kew in 1964. He has published the results of his work in the Bot. Jahrbucher, Band 85, Heft. 2, 259-328. 1966.

Hay, Lord Wm. E., (Army Capt.), collected in the Karakorum in 1857 and in Lahul and Ladak in 1862. His collection went to Calcutta but there are some duplicates at Kew.

Heen, A., Norwegian botanist, collected in the Tirich Mir region of Chitral in 1949. Specimens in Norway.

Henderson, Dr. George (1836-1929). Prof. of Botany at the Univ. of Calcutta was a member of the First Forsythe Mission to Yarkand and with A. O. Hume was the author of "Lahore to Yarkand", 1873. A set of his specimens is at Kew, Calcutta and Leningrad.

Heyde, Rev. A. W. of the Moravian Mission in Lahul, c. 1872-9, collected in Lahul, Rupshu and Ladak. Specimens are at Kew, Dehra Dun, Calcutta, Leiden and Stockholm.

Holdsworth, R. L., plant photographer, formerly of the Islamia College, Peshawar collected in Kashmir and the Kagan Valley c. 1940. Plants at the B. M.

Holland, Dr. Ronald of the Church Missionary Society Hospital, Quetta. Specimens at Kew.

Honda, Katsuichi, Kyoto Univ. student with K. Ogino and C. Iwatsubo collected on the Japanese Expedition to Upper Swat and the East Hindu Kush Expedition of 1957. Plants in Kyoto.

Honigberger, John Martin (b. 1795?) was the first to visit the Kurram Valley in 1833, travelling on to Kabul where he collected before Griffith, interested chiefly in Materia Medica. A few of his specimens reached Endlicher who published "Sertum Cabulicum" but much of his collection is still lying unnamed in Vienna. In 1835 he visited Kashmir. The list of his plants is now coming out in Symbolae Afghanicae.

Hooper, David (1858-1947), Curator of the Industrial Section of the Calcutta Museum made a collection of plants in Sind which is at Kew, Edinburgh and Calcutta. The specimens are not numbered.

Hotson, Capt. (later Col.) **I.G.B.** (? **J.E.B.**) of the **I.A.R.O.** made a collection of plants in Persian Baluchistan and the Makran coast which was sent to **Blatter** in **Bombay**. **Father Blatter** published a list of his determinations in the **Journ. Ind. Bot. Soc.** Vol. **1**, 1918-1920. **Father Santapau** has informed me that these specimens were never mounted as they were small and received in envelopes.

Hugel, Baron Carl von. (1794/5-1870), visited Kashmir in 1835 in Ladak in 1837. His specimens are in Vienna, Cambridge, Leningrad, etc.

Hughes-Buller, R., Indian Forest Service, collected widely in Baluchistan and with **R. B. Jamiat Rai** wrote the botanical portions of the **Bolan, Makran and Las Bela Gazetteers**, c. 1905, His collection numbers are cited by **Burkill**. There was a **Herbarium** at **Quetta** which was destroyed in the earthquake of 1935 and I do not know whether any of his gatherings have survived anywhere or not. A set may be in **Calcutta**.

Hunter-Weston, Capt. A. G., Royal Engineers, collected in **Baltistan** 1889-1890. Specimens at the **B. M.** and a few at **Kew** and the **Univ. of Michigan**.

Inayat Khan, professional collector for **Duthie** from 1894 to 1901, possibly longer. He made large and important collections in **Hazara, Astor, Purig (Dras) Chitral** and **Kashmir** which are in **Duthie's** number series. Large sets are at **Dehra Dun, Kew** and probably at **Calcutta**.

Iwatsubo, Goro, Kyoto student, collected with **Honda**, mentioned above.

Jacot-Guillarmod, Dr. J., collected in the **Biafo** region of **Baltistan** in 1902 and in **Nepal** in 1905. He collected some plants on **K2** which are at **Geneva**.

Jacquemont, Victor (1801-1832), brilliant French botanist, collected widely between 1828 and 1832 in the **Punjab** and **Kashmir** and also in parts of **India**. He was the first botanist in most if not in all of the places he visited. He was a good collector, numbering and localising his collections. His French spelling, however, sometimes makes it hard to tell what the place is on a modern map. He died of cholera or dysentery before he could return to **France** and his work was written up by **J. Cambessedes** and **F. Decaisne** in "Voyage dans l'Inde pendant les années 1828-1832". He made good collections in **Jammu, Poonch, Kashmir** and the **Salt Range**. The first set is in **Paris** and a good set is at **Kew**.

Jaeschke, Rev. Heinrich A., colleague of **Heyde** in the **Moravian Mission** c.1856-71. The genus *Jaeschkea* was named in his honour. He collected in **Lahul, Rupshu** and **Ladak**.

Jafri, Dr. S. M. H., Prin. Govt. College, Nazimabad, Karachi, author of the Flora of Karachi (1966) and of various papers on the *Cruciferae* and *Capparidaceae* of West Pakistan has collected chiefly in Sind and Baluchistan but he has also collected in Hazara and the Murree Hills. Some of his duplicates are in Kew and Edinburgh. Akbar collected with him in Baluchistan.

Jalis, Asghar, of the Tando Jam Agri. College. His specimens are at Tando Jam and many duplicates are in Rawalpindi.

Jeffreys, W. M. collected in the Bugti Hills region of Baluchistan. His undated specimens were received at Kew in 1911.

Johnston, Col. Henry Halcro (1856-1939), Indian Army, collected in the Khyber Pass c. 1896. His main collection is at Edinburgh but there is also a set at Kew.

Jencken, Dr. collected the type of *Impatiens flemingii* Hk. f. in 1895 in the Murree Hills.

Jorstad, F. (and with **Vogt Lorentzen**) collected in the Tirich Mir region of Chitral in 1950.

Kapoor, L. D., Sarin, Y. K., Dutt, A. K. of the Regional Research Laboratory, Jammu Tawi, Kashmir have collected in Kashmir and their specimens are in Jammu.

Kashyap, Shiv Ram (1882-1934), specialist in liverworts and author with Prof. A. C. Joshi of the Lahore District Flora in 1936 collected in the Punjab, Ladak and Tibet. Collection in Lahore.

Kazmi, Dr. S. M. A., North Regional Laboratories, P.C.S.I.R., Peshawar has collected in Astor, the Upper Guraiz Valley, Hazara, N.-W.F.P., Makran, and Baluchistan. Plants in Peshawar. Accompanied Dr. Rechinger in 1965.

Kerstan, G. collected in Chitral while a member of the German Hindu Kush Expedition of 1935. Author of "Waldverteilung und Verbreitung der Baumarten in Ost Afghanistan und Chitral" in *Schriften der Deutschen Forschungs-gemeinschaft*, N. F. 1, 1937. The results of the work of this team are being incorporated in *Symbolae Afghanicae*. Specimens in Halle.

Keshavanand, Rai Bahadur, Ind. For Service, collected in Kashmir, 1906-9 especially in the Jhelum and Kishenganga Vys. His main collection is at Dehra Dun but there are many duplicates at Kew and Oxford.

Khan, Dr. A. H., formerly botanist at the Pakistan Forest Institute Herbarium at Peshawar and now at the Agri. Univ. at Lyallpur has collected in Baluchistan, the N.-W. F. P., Hazara, etc. Specimens now in Peshawar.

Khan, Abdul Rashid, Kashmir Forest Service, collected chiefly in Poonch, accompanied by his able collector Jan Mohammad of Muzaffarabad, Azad Kashmir. His collections are at Muzaffarabad and at Gordon College.

Khair-ud-Din collected some plants in Baluchistan in 1957. Plants at Gordon College.

Khattak, G. M., West Pakistan Forest Service, collected in the Quetta area. There are specimens at Gordon College and a few at Kew?

Kihara, H. of the Japanese team collected in Quetta in 1955.

Kitamura, Siro, leader of the Kyoto University team and author of the "Flora of Afghanistan", 1960; "Additional Reports. 1966; and of "Plants of W. Pakistan and Afghanistan" 1964. Collected in Baluchistan, Afghanistan and Chitral. Specimens in Kyoto. He has published quite a few new species but unfortunately without checking with Kew or the B. M. by sending duplicates. Some of the new species are probably known already under older names.

Koelz, Dr. Walter Norman (b. 1895) was a professional collector of plants, birds and seeds for about 25 years, beginning his career by collecting in Kulu in 1930. At first he collected in the N. W. Himalaya for the Roerich Foundation, then for the U. S. Bureau of Plant Industry and thirdly for the University of Michigan. His plant collections amount to about 34,000 numbers, not counting the thousands of packages of seeds. He collected in Kulu, Lahul, Chamba, Kashmir, Ladak, Baltistan, Sind, Iran, Afghanistan and Assam. His largest collections are in the U. S. National Herbarium, the University of Michigan and the New York Botanical Garden but there are many duplicates in Vienna, Kew, Edinburgh, Leiden, Rawalpindi, etc. Most of this time Thakur Rup Chand was his assistant.

Kohli, P. N., Kashmir Forest Service, collected in Kashmir and Ladak c. 1930-40. He discovered *Chelonopsis* near Uri, a genus previously known from China. Some of his plants are at Kew.

Lace, John Henry (1857-1918), Indian Forest Service. Author of "Sketch of the vegetation of British Baluchistan", Journ, Linn. Soc. Bot. 28:288-327. 1891. This paper lists about 700 species which he collected between 1885 and 1888. His plants are at Edinburgh, Kew, Dehra Dun and Calcutta.

Lambert, W. J., Kashmir Forest Service and author of a useful "List of the trees and shrubs of Kashmir and Jammu Forest Circles (For. Bull. No. 80, 1930, Calcutta).

Lance (no initials mentioned) is reported by Sir Joseph Hooker in Flora Indica as having collected in the Wurdwan Valley, Kashmir, in Dras, Ladak and Spiti. He may have been the John Henry Lance (1793-1878) who collected in Surinam. Specimens at Kew.

Lamond, Miss J. M. toured the N.-W. Frontier of Pakistan in 1965 with K. H. Rechinger entering Baluchistan from Iran and leaving by the Khyber. Her 2,600 numbers are at Edinburgh.

Landon (no other data) found *Alyssum homalocarpum* in Baluchistan in 1902.

Lester-Garland, Rev. A. G. (1860-1944), probably an Army Chaplain collected on the N.-W. Frontier in 1926-7.

Leith, Andrew H. (fl. 1840-57) M. D., Surgeon H.E.I.C.S., Bombay. His specimens from the Bolan Pass are at Oxford.

Levinge, Henry (or Harry) Corbyn (1831-1896), Bengal P. W. D., collected ferns in Kashmir. Specimens at Kew and Oxford. His collection numbers are in C. B. Clarke's series.

Lloyd P. S. & Megan, S. made a small collection of plants in Baltistan which is in the B. M.

Lodhi, Prof. Sher Ahmad, Punjab Univ., Lahore, has collected in Peshawar and the Khyber Pass. Some specimens are in Rawalpindi and the main collection in Lahore.

Lowndes, D. C. collected on the N.-W. Frontier including Waziristan. Some specimens are at Kew.

Ludlow, Frank, (1855-), now of the B. M. Author of "Primulas of Kashmir" Journ. Roy. Hort. Soc. 76:191-206. 1951 has collected in most parts of the Inner Himalaya and Kashmir and also in Tibet. On many of his trips he was accompanied by Major George Sherriff. His specimens are in the B. M. and Edinburgh.

Mason, Major Kenneth, of the Survey of India collected on the northern frontiers of Baltistan in the Shaksgam and Aghil ranges.

Maynard, Capt. Surgeon Fred. P., served on the Baluch - Afghan Boundary Commission of 1896 and collected west of Quetta and named his plants at Calcutta with the aid of Sir David Prain.

Mc Donnell, J. C., Indian Forest Service, collected in Kashmir and in Jhelum Dist. of the Punjab c. 1890-95. He was specially interested in ferns. Specimens probably at Dehra Dun.

Mc Vean, Dr. Donald N., formerly of the Scottish Forest Conservancy Service and now in Australia collected in Murree and Hazara c. 1959. Specimens at Edinburgh and some at Gordon College.

Meebold, Alfred Karl, (b. 1863). Author of "Eine Bot. Reise durch Kaschmir", Bot. Jahrb. 43, (Beibl. 99) 63-90. 1909 His trip was made in 1905. Specimens are in

Breslau, Berlin, Kew and Calcutta.

Meinertzhagen, Col. R., ornithologist, collected in Ladak and Baltistan. Specimens at the B. M.

Metz, Dr. W. S. of the Ford Foundation, Lahore c. 1954 photographed flowers and collected in the Upper Kagan Vy. alone and with Sh. Ali Chowdhury. Specimens at Gordon College.

Mohammad, Jan, forest ranger of the Azad Kashmir Forest Service, has collected a great deal in Poonch and the Muzaffarabad District. He collected for his department alone, with A. R. Khan and with me and E. Nasir. His specimens are at Muzaffarabad and Gordon College.

Meynell, Lt., collected in Waziristan and gave his plants to Father Blatter.

Monro, A. V., Indian Forest Service, collected on the N.-W. Frontier and in Baluchistan c. 1893. Plants in Dehra Dun and?

Moorcroft, William, (1765 ?-1825), Veterinary officer of the East India Co. was the first to do any collecting in Ladak and Kashmir though his collection was a very small one of only 23 species and it was not in very good condition when it reached Wallich in Calcutta. Among other novelties he discovered *Gentiana moorcroftiana* in Dras. He was in this part of the world from 1820 to 1822, ten years before Jacquemont but Jacquemont made a large collection of good quality.

Munro, Gen. Wm. (1818-1880), was in India from 1834 to 1848. He was an authority on grasses and collected in many places. He was in Kashmir in 1847. Specimens at Kew, Dehra Dun and Oxford.

Murray, J. A., author of "Plants and Drugs of Sind". Karachi, 1881. This book includes a valuable list of species with their uses. Plants at Kew.

Nakao, Sasuke, member of the Japanese Karakorum team, 1956-7.

1905 —

Nasir, Eugene, Gordon College, Rawalpindi, specialises in the *Umbelliferae* and *Caryophyllaceae* but he is also a general collector. He accompanied me on dozens of trips, long and short, for many years. He has also done much collecting on his own especially during the last five years collecting seeds and plant products for the U.S. Deptt. of Agriculture. His main collection is in Gordon College but duplicates are in Washington D. C., Michigan and Kew and British Museum.

Nasir, Yasin (son of E. Nasir) has collected widely usually with M. A. Siddiqi or his father. Specimens distributed as above.

Nayar, Dewan Mohindar Nath, (M. Nath) at present in Lusaka, Zambia taught for years in Gordon College before going to the Univ. of Rangoon in 1947. His Baluchistan, Kashmir and W. Punjab collections are at Gordon College. His fine private collection was lost in 1947 when India was divided. Some duplicates in Dehra Dun.

Neve, Dr. Arthur, Kashmir Medical Mission (C.M.S.) collected in Baltistan, Ladak and Kashmir. Some of his specimens dated 1895 and 1898 are at Kew.

Noel, Emilia Frances (d. 1950), collected in Kashmir and published an enumeration of Kashmir plants in 1900 (Burkill).

Norris, Dr. Jonathan Justus, New Mexico State College of Agriculture, taught two years at Tando Jam in Sind c. 1956. Specimens of his grasses are at Kew, Gordon College and probably at Tando Jam.

Ogino, Kazuhiro, member of Kyoto Univ. team visiting Swat and the East Hindu Kush in 1957.

Osmaston, B. B., Indian Forest Service, made a useful collection in Suru, Ladak and Baltistan which is preserved at Kew.

Parker, Richard Neville (1884-1958), Indian Forest Service, author of "A Forest Flora for the Punjab, Hazara and Delhi", Gov't Press, Lahore, 1918, ed. 2, 1924, collected chiefly in the area covered by his flora. Specimens at Kew and Dehra Dun.

Parsons, Col. A.E.B found *Fritillaria imperialis* and *Tulipa chrysanthina* in the Tochi Vy., Waziristan and a pale form of *Tulipa lehmanniana* near Quetta. Specimens at Kew.

Perry, W. Wykeham, collected specimens in Sind in 1879 which are at Kew.

Phillimore, Col. R. H., Survey of India, collected seeds and plants in and around Gulmarg, Kashmir c. 1950-1960. Plants at the B. M. (Ludlow).

Pierce, Edwin, an army officer? Collected on the coast of Baluchistan in 1880. His labels merely state "Baluch Coast", 161 specimens are at Kew.

Pinfold, Miss, daughter of Dr. Pinfold, geologist of the Burma Shell Co. collected in Rawalpindi and Kashmir. Specimens at the B. M.

Pinwill, Capt. W. Stackhouse (1835-1920) collected sedges in Sind before 1857. His specimens reached Kew in 1877 and are all marked Sind without further localisation. As he is the only one to report many of them from this area I suspect that some of his species were gathered in the Himalayas.

Polunin, O., an English schoolmaster. Collected in Gilgit and Kashmir in 1956 and 1960. Specimens at the B. M.

Popov, G. an English entomologist of the Locust Survey, collected a few plants from Pasni, Baluchistan in 1963 which are at the B. M.

Prescott-Decie, Mrs. Her Kashmir collection is at the B. M.

Puran, Bhola was a collector in Sind for Cooke.

Qazi, Mohammad Iqbal, lecturer, Gov't College, Quetta, accompanied me when I was collecting in Baluchistan in 1962. Some of his specimens are at Gordon College, the balance should be in Quetta.

Qazilbash, Nawazish Ali, retired professor of the Islamia College and of the Univ. of Peshawar has collected in the N. - W. F. P., Chitral and Hazara. Collection in Peshawar with a few duplicates at Kew.

Rai, Rai Bahadur Jamiat, Indian Forest Service, helped prepare a number of the Baluchistan Gazetteers. His plants were used by Burkill and may have been lost in the Quetta Earthquake of 1935. I have not seen any.

Rao, T. Ananda, author of "A Botanical Tour in Kashmir State", Rec. Surv. Ind. 18 (2) 1961. This contains a number of doubtful records, probably misidentifications. Specimens in Regional Centre, Bot. Surv. Ind., Dehra Dun and Calcutta.

Rechinger, Prof. Karl Heinz (b. 1906). Director of the Vienna Bot. Garden and Editor of "Symbolae Afghanicae" and "Flora Iranica" has collected extensively in Afghanistan and in 1965 accompanied by Miss Lamond of Edinburgh, mentioned earlier, collected along the N.-W. Frontier from Iran to the Khyber. He had previously collected in Swat. Specimens in Vienna

Repp, Mrs. (Dr.) Gertraud of Vienna made a collection in Baluchistan and the N.-W. F. P. c. 1959. Specimens in Vienna. Dr. Rechinger has named *Ferula reppiae* in her honour

Rich, Col. H. H. made a fine collection of Kashmir plants in 1918 which is preserved at Kew.

Ritchie, Dr. David, I.M.S. (1809-1866), collected chiefly in Bombay but made a collection in Sind and W. Punjab after Griffith but before Stocks. Plants in Edinburgh and Calcutta with some duplicates at Kew.

Roberts, Surgeon Capt. J. R., collected in Gilgit and his specimens were given to Duthie and are probably in Dehra Dun.

Rodin, Dr. Robert J. (b. 1922) of the Forman Christian College, Lahore in 1952 collected in Swat, the N.-W. F. P. and about Murree. Specimens in the Univ. of California and Kew.

Roero, Marquis of Cortanze went from Leh, Ladak to Yarkand in 1868 making a small collection mentioned by Pampanini in his "Flora of the Caracorum".

Royle, Dr. John Forbes (1800-1858), author of "Illustrations of the Botany, etc., of the Himalayan Mts. and of Cashmere", 1833-1840. He was Curator at Saharanpur in 1823 and retired to Britain in 1831. Many of his specimens are at Dehra Dun and Kew but his main set of 10,000 specimens lay neglected in Liverpool until recently. He used native collectors to secure Kashmir plants. Burkill states that pedlars brought Royle live plants and that in 1830 when Jacquemont visited Saharanpur he saw hundreds of Kashmir plants growing. In 1829 and 1831 Royle had collectors in Kashmir who apparently travelled with the shawl merchants.

Sabnis, T. S. of the Bot. Surv. Ind. and author of the "Flora of Sind" in the Journ. Ind. Bot. Soc., vols. 3 & 4, 1923-4 and "A contrib. to the flora of the Pb. plains and associated Hill regions, Journ. Bomb. Nat. Hist. Soc. 42 in pts. 1940-1941. Plants in Dehra Dun?

Sack, John, Harvard student, who accompanied Grady Webster to the Karakorum in 1955 collected a few specimens in Murree which are at Kew.

Sahni, Dr. Birbal (b. 1891, d. c. 1950?) a distinguished paleontologist made a collection of flowering plants in Kashmir and Ladak which are at Kew.

Saleem, Dr. K. M. of Peshawar Univ. sent 297 specimens to Kew in 1965 from Peshawar Dt. and Dir State. Part (or all) of the collection was made in 1964 by Bashir Ahmad Suhail.

Santapau, H., Director of the Botanical Survey of India and formerly of St. Xavier's College, Bombay collected around Quetta in May-June 1945. The collection was sent to Kew but it may not be mounted for I failed to find it in 1966.

Saunders, Miss Elsie M., formerly of the Church Missionary Society Hospital in Delhi spent her summers in Murree and sent many good specimens to Kew, mostly from the Murree Hills but some were from Kashmir c. 1920-35.

Arnold?

Scheibe A., with **Kerstan, G.** was a member of the German Hindu Kush Expedition of 1935. For list of plants see Haeckel & Troll in Fedde, Repert. Beihefte 108, 1-72. 1938. These names are being incorporated in Symbolae Afghanicæ.

Schlagintweit brothers, **Herman** (1826-1882), **Adolf** (1829-1857); **Robert**, (1833-1885), explorers of the Western Himalayas and the adjacent Tibetan frontier areas. They penetrated into many places before any one else. They made large collections of plants and duplicates were distributed to various herbaria. "Results of a scientific Mission to India and High Asia" was published 1861-6.

Schmid, Dr. Ferdinand, of the Swiss Entomological Expedition of 1953-4 made a good collection of plants from Chitral, Gilgit and Astor with a smaller one from Baluchistan. J. J. Buetinger of Lausanne accompanied Dr. Schmid. I met the team in Gilgit in 1954. Their main collection is in Geneva and there are many duplicates in Rawalpindi. A few are in Kew.

Schomberg, Col. R.C.F., hunter and explorer. His specimens from the Upper Nubra Valley are in the B. M. He is author of "The deserts of the Kashmir-Tibetan Frontier, Scot. Geogr. Mag. 63 p. 64 ff.

Scott-Russell, R., Indian Army, collected in Baltistan and the Gilgit Agency in 1939. He wrote about Nagir and the Barpu Valley in the Geogr. Journ. 95:409 ff. Plants at B. M.

Sharif, Mohommad., West Pakistan Forest Department. A few of his plants are at Kew.

(1898-1967)

Sherriff, Major George, formerly British Political Agent in Kashgar was the companion of Frank Ludlow on many of his expeditions along the India-Tibetan frontier. Both names appear on many labels. Plants at the B. M.

Siddiqi, M.A., lecturer at Gordon College, Rawalpindi has collected for Gordon in many places from Baluchistan to Chitral, part of the time alone but usually with another collector from the college. His main collection is in Rawalpindi but there are duplicates at Kew, Michigan and Washington.

Sprague, Thomas Archibald, (1877-1958) of the Kew staff collected in Rawalpindi and Murree while with the British Army toward the end of the First World War. Plants seen at Kew.

Stainton, J. D. A., English lawyer and plant collector made an excellent collection of plants in Chitral in 1958. Part of the time he was accompanied by S. A. Bowes-Lyon who maintained his own number series. Their main collection is in the B. M., a second set in Edinburgh and some of Stainton's duplicates are at Gordon.

Stearn, William Thomas (b. 1911) of the British Museum staff made a small collection of plants from the vicinity of Karachi which I saw at Kew.

Stein, Sir Aurel, Central Asian explorer, found *Butea* and *Iris drepanophylla* in Swat.

Simpson, Lt. R. S. in 1840 collected some plants in the Bolan Pass, Baluchistan which are preserved at Oxford.

Stewart, Dr. John Lindsay, (1832?-1873) went to India from Edinburgh in 1856 and accomplished a great deal of useful botanical work. He published "Punjab Plants" in 1869 and in the same year "Notes of a Botanical tour in Ladak or Western Tibet. He collected in many parts of the N.-W. F. P., Salt Range, Kashmir, Ladak, etc. Sets of his plants are in Dehra Dun, Kew and Edinburgh.

Stewart, Dr. Ralph Randles (b. 1890), Principal Emeritus of Gordon College, Rawalpindi, an American Presbyterian institution where he began to teach in 1911 and from which he retired in 1960. Since leaving Pakistan he has been a Research Associate at the Univ. of Michigan. With the cooperation of colleagues and students he accumulated a herbarium with more than 30,000 numbers. In the summer vacation of 1912 he collected in Kashmir and Ladak and in 1913 in Kashmir, Ladak and the Suru region of Zaskar. He has spent numerous vacations at various places in Kashmir, including Gulmarg, Pahlgam, Sonamarg and Tragbol. On longer trips he visited Kishtwar, Baltistan, Gilgit, the Deosai Plains, etc. After the Partition of India his collecting has been in West Pakistan, in Baluchistan, Sind, the Kurram Valley, Chitral, Gilgit, Swat, Hazara, etc. Poonch was visited five times and Mirpur once. Numerous one day trips were made with students and teachers. On his Gordon College, number series the names of E. Nasir, M. A. Siddiqi, Abdul Rahman Beg and Sh. Ali Chowdhury often appear. Thousands of duplicates are at Kew, New York, and other herbaria. His last trip which included Swat, the Murree Hills, Baluchistan etc., was made in 1962. On some of his trips he was accompanied by his wife Isabelle Caroline Darrow the tickets being marked R. R. and I. D. Stewart.

Stocks, Dr. John Ellerton, (1822-1854) Indian Med. Service. His work was at first that of a vaccinator. Although he was not in Sind and Baluchistan very long his trips of 1848 and 1850 resulted in collections which are the chief foundation for our knowledge of these two areas. He found about 400 species in Sind and about 1,500 in Baluchistan. It is not certain whether or not he made a third trip in 1852. Boissier named a great many of his plants and they are cited by him in his *Flora Orientalis*. A large set of his specimens is at Kew and another in Dehra Dun.

Stokoe, Canon, Chaplain of Srinagar, made a fine collection of Kashmir plants c. 1920-25 which I saw in his home. I do not know what has become of it. A few specimens are at Kew.

Stoliczka, Ferdinand, (1838-1874) of the Geological Survey of India accompanied Dr. Bellew on the Yarkand Expedition of 1874, dying on the Karakorum Pass. A set of his Rupshu and Ladak plants is at Kew.

Strachey, Sir Henry, (brother of Sir Richard) of the Tibetan Boundary Commission of 1848 made a small collection of plants at the Pangong Lake in Eastern Ladak. He surveyed the Upper Indus Valley.

Suzuka, Dr. O. of Kyoto visited Pakistan in 1952 for work on *Artemisia*. He collected in Rawalpindi, Abbottabad, Baluchistan and Afghanistan. Specimens are in Kyoto.

Tanner, Col. H. C. B. collected in Astor and Gilgit in 1880. His plants are at Kew.

Tasnif, Mohammad and **Snead, Rodman E.** collected on the Sind Coast and on the Las Bela Coast of Baluchistan, 1959-1963. Snead is a geographer from Clark Univ., U.S.A. and Tasnif is a botanist for the Council of Sci. and Industrial Research, Karachi. Specimens are in Karachi.

Taylor, Sir George (b. 1904), Director of the Royal Botanic Gardens at Kew. A few specimens found in the Khyber Pass are in the B. M.

Thornley, J. W., collected some plants in Gilgit in 1950 but died on the expedition. Plants at the B. M.

Ticehurst. Made a list of Sind plants which Sabnis used in preparing his Flora of Sind.

Toppin, Sidney Miles, Major, R.A.M.C., (1878-1917; Killed at Ypres), collected in Chitral 1900-2 and in Gilgit in 1909. Specimens at Kew. *Impatiens toppinii* Dunn was named after him.

Troll, Karl, (b. 1899), was botanist on the German Expedition to Nanga Parbat c. 1935 and author of the excellent ecological work "Das Pflanzenkleid des Nanga Parbat". Leipzig, 1939. Part of his collection is thought to have been destroyed in the war. Plants in Berlin.

Trotter, E. W., Director of Punjab Post and Telegraph Dept. collected ferns industriously from 1885 to 1890. ^{the} He also collected flowering plants, especially grasses in Poonch, Murree and Hazara. His main collection is at Gordon College with some duplicates at Kew.

Tyndale-Biscoe, Hugh, formerly lecturer at Edwardes College, Peshawar collected in the Barpu Valley, Nagar (near Hunza) in 1956. Specimens are at Gordon College and Peshawar?

Vaid, Krishan Man Mohan, of the staff of the Forest Research Institute, Dehra Dun and formerly of Gordon College has collected in Kashmir, Kulu, Kangra, Garhwal, etc. Specimens in Rawalpindi and Dehra Dun.

Van Soest, Dr. J. L., specialist in *Taraxacum*, collected in Kashmir in 1959 accompanied by Harbhajan Singh. His specimens are in Leyden. He has described many new "species" in Wentia 10:1-91. 1963. As they are apparently all apomicts some botanists believe that the *Taraxacum* complex in the Himalayas should be treated as *T. officinale* sp. aggr.

Ved Parkash Datta, N. W. Railroad, formerly of Gordon College collected in the vicinity of Quetta c. 1935. Plants in Rawalpindi and Dehra Dun (K. M. Vaid).

Vicary, Major Nathaniel, (fl. 1835-1859) entered Sind with his regiment of the Bengal Army in 1832 (1835?) and was the first to collect in this region. He also collected in the Punjab, Salt Range and N.-W. F. P. Specimens at Kew and Calcutta.

Vigne, G. T., author of "Travels in Kashmir, Ladak and Iscardo" London, 1842 entered Kashmir in 1835 meeting Falconer and Von Hugel. He visited Hazara, the Deosai, Skardu, Nubra and Leh. His plants are said to have gone to Royle. I have not seen any of them.

Visser-Hooft, Mr. & Mrs. J., formerly of the Swiss Consulate, Calcutta explored the Karakorum in 1922, 25 and 1929. Specimens were determined by H. E. Dolk and are in Holland. See "Recueil des travaux bot. Neerlandais Vol. 25:294. 1929.

Ward, Col. A. E. and his daughter **Miss Grace Ward**. A few specimens are at the B. M. Col. Ward visited the Sassir La in 1895.

Wathen, Millicent, wife of Prof. G. A. Wathen, former Principal of Khalsa College, Amritsar, c. 1925-40 painted many of the pictures used by Blatter in his "Beautiful Flowers of Kashmir". A few specimens are at Kew.

Watt, Sir George (1851-1930). Author of "A Dictionary of Economic Products of India, 6 vols., 1889-1896. He visited the Karakorum in 1878. Specimens at Edinburgh and some at Kew, also at Oxford.

Webster, Dr. Grady L., formerly at Harvard, presently of the Univ. of California at Davis visited the Hushe Valley in the Karakorum with a Harvard team of climbers. Together with Prof. E. Nasir of Gordon College he also visited Astor and the Deosai Plains. John Sack and Harry Francis of the climbers also gathered some specimens. Nasir's set is at Gordon College, Webster's at Purdue Univ. and at Kew. For details of plants collected see "The vegetation and flora of the Hushe Valley" by Webster in Pakistan Journal of Forestry 15 (3) 201-234, 1965.

Weiler, Dr. G. collected in the Baltoro region of Baltistan going in from Shigar in 1956. Alex. Gilli of Vienna published "Beitrag zur Flora des Karakorum von der Oesterr. Karak. Exped. Date?

Welby, Capt. M. S. and **Neill, Malcolm** in 1896 went from Leh, Ladak into Central Asia. For an account of their collections and that of other early explorers in Tibet see Hemsley in Journ. Linn. Soc. 35:1-120.

Wendelbo, Per, author of "Plants from Tirich Mir, a contribution to the flora of the Hindu Kush" Oslo, 1952 and of various papers on the flora of Chitral and Afghanistan. He went to Chitral in 1950 with the Norwegian Expedition which climbed Tirich Mir, accompanied by Dr. I. I. Chaudhri then of the Pak. For. Dept. Plants in Bergen with some duplicates at Kew. A set of Chaudhri's is at Gordon.

Williams, Rev. J., probably an Army Chaplain, collected at Dera Ismail Khan and Waziristan in 1888. Specimens at Dehra Dun.

Wingate, Gen., collected grasses in Baluchistan and the N-W.F .P. c. 1895. A set of his specimens and of his drawings of grasses is at Kew. He was probably in charge of Army grass farms.

Winterbottom, James Edward, (1803-1854). In 1848 he accompanied Sir Richard Strachey who was serving with the Tibetan Boundary Commission. I have seen many of his Gilgit, Guraiz and Astor specimens at Kew.

Woodrow, George Marshall, (1846-1911), Director Bot. Surv. Bombay, 1893-9 collected in Bombay and Sind. Some of his specimens at Kew.

Young, Alfred Prentice collected extensively in the Kashmir Valley in 1883. Plants at the B. M.

Younghusband, Capt., later **Sir Francis**, (1863-1942), collected in Chitral while on the Relief Expedition under Gen. Gatacre. He also collected in Ladak. Plants went to Duthie at Dehra Dun.

Zahur, Dr. Mohammad, Punjab Univ., Lahore has collected in Chitral, Gilgit, Swat, the Kagan Vy. etc. Plants in Lahore.

Zaman, Dr. M. B., Pakistan Forest Institute, Peshawar has collected in Hazara, Gilgit, etc. Plants in Peshawar.

Addenda

Ahmad, Iftikhar, Punjab University, collected in Jhelum Dt. in preparation for his M.Sc. thesis c. 1950. Specimens in Lahore.

Akbar, companion of Prof. Jafri in Baluchistan.

Ali, Rashid, Prof. of Zoology, Gordon College has collected in Sind and the N.-W. F. P. Plants in Rawalpindi.

Ali, Zaffar of Gordon College has collected in many places often with M. A. Siddiqi. Plants in Rawalpindi; a few in Michigan.

Anderson, Thomas (1832-1870), teste, Lanjouw, collected in India and Pakistan between 1861 and 1870 with specimens in Berlin, Brussels, Kew, Leningrad, etc.

Bhide, R. K. collected in Sind c. 1904. Specimens at Kew and New York

Davis, Helen Isabel (b. 1890?), collected 346 Kashmir specimens now preserved in Wellesley College, U.S.A.

M Ferger, M., (teste Lanjouw), gave a 1922 Kashmir collection to Wellesley College, U.S.A. It was probably Miss Nellie Ferger of the Presbyterian Mission, Dehra Dun.

Haines, Henry Haselfoot, (fl. 1889-1920) is stated by Lanjouw to have collected in Pakistan as well as in India. Most of his work was in Bihar and Orissa and I have not seen any Pakistan specimens. His plants are at Kew, Aberdeen, Breslau and the Arnold Arboretum.

Heybroeck, H. M. is credited by Van Soest with collecting *Taraxacum* in Kashmir in 1960. He also collected *Ulmus*. Plants probably in Leiden.

Hussain, S. Murtaza (b. 1912). Specimens at Kew and Pakistan Forest Institute.

Hutchinson, G. E. collected in W. Tibet (no doubt Ladak) in 1932. Specimens in Arnold Arboretum. *with de Terra*

James, Sir Henry Evan Murchison, is credited by Burkill with having collected in Sind. I have seen no specimens.

Khan, Saeed Ahmad of Peshawar
Laurie, A. E., collected in Sind. Specimens at Dehra Dun.

Macdonald, J., collected some specimens in the Khyber Pass which are at Edinburgh.

Masson, Army Surgeon, author of "Narrative of a Journey to Kalat" London, 1843, mentioned by Burkill does not seem to have collected.

Maynakel teste Hedge collected in Baluchistan. No data given.

Mc Cann, Charles, collected with Blatter in Baluchistan etc.

Nowitzky, W. Th. in 1898 collected in Leh, the Khardong, Sassir and Karakorum Passes. Lipsky has made a *Brava nowitzkii* from a specimen from the Karakorum Pass.

Palmer collected from the Makran Coastal ranges and Iran. Specimens in the Willdenow Herbarium, Berlin. See L. Lewin in Engl. Bot. Jahrb. 56:123-34. 1921 for list of plants, det. by Ascherson & Hennings.

Persson, C. See "A list of plants from E. Turkestan and Kashmir" Bot. Notis. 1938:267-317. 1938.

Quraishi, Mohammad Asghar and Khan, Saeed Ahmad, authors of "Flora of Peshawar Dt. & Khyber Agency, Pts. I & II. *Pakistan J. For.* 15:364-393, 1965. and 17:203-54, 1967. Plants in Peshawar.

Shah, Altaf, collected in Hazara for Gordon College.

Strachey, Sir Richard, bro. of Sir Henry, Bombay Engineers and author of "A catalogue of the Plants of Kumaon and the adjacent portions of Garhwal and Tibet" collected in Poonch, Kashmir, Astor etc., in 1847-8. Plants in Kew and B. M.

Suhail, Bashir Ahmad collected for Prof. K. M. Saleem of Peshawar.

Singh, Dr. Harbhajan et al. teste Van Soest, collected *Taraxacum* in Kashmir in 1961.

Thomson, Thomas (1817-1878) entered the service of the East India Co. in 1839 and left in 1861. As a member of the Tibetan Border Commission during 1847-8 he collected widely in the Kashmir, Ladak, Baltistan and Rupshu areas. His specimens are good but not well localised. Many simply state "W. Tib." From his book "Western Himalaya and Tibet" London 1852 it is often possible to figure out his localities more accurately. At Kew he collaborated with Sir Joseph Hooker in the preparation of early vols. of the Fl. Brit. Ind. From 1854-61 he was Supdt. of the Calcutta Bot. Garden. Specimens at Calcutta, Kew, Oxford, etc.

Watson is reported by Hedge as having collected in Baluchistan, without any data.

Weatherhead, T. D. teste Hedge, collected specimens in Swat which are in the B. M.

Yamashita, K., teste Kitamura collected in Chaman, Baluchistan in 1955. Plants in Kyoto.

The above list is incomplete in many details. I would appreciate it if errors and additional facts are sent to me at the Herbarium of Michigan University, Ann Arbor, Mich. or to Gordon College, Rawalpindi, W. Pakistan. When enough come in a Supplement can be published. The basis of the above list is my own reading, five summers at Kew with visits to the B. M., Edinburgh, New York and other herbaria plus facts supplied by Father Santapau of Calcutta, my old student K. M. Vaid of Dehra Dun, Messrs. B. L. Burt and Ian Hedge of Edinburgh. Mr. Frank Ludlow of the British Museum, Dr. S. I. Ali of the Univ. of Karachi, Mr. J. R. Sealy and Dr. N.L. Bor at Kew. I am grateful for the information they have supplied.

Bibliography

1. BRITTEN and BOULGER. *British and Irish Botanists* (Ed. 2 by Rendle, 1931.)
2. BURKILL, I. H. For his notes on Indian botanists up to 1900 see *Journ. Bombay Nat. Hist. Soc.* 59:777 ff. 1963 and 60:48 ff. 1964.

3. CLOKIE, H. N. *An account of the Herbaria of the Dept. of Botany, Oxford.* Oxford Univ. Press. 1964.
4. HEDGE, IAN. Mimeographed "*List of the collectors of the Flora Iranica area*". Edinburgh, 1966.
5. LANJOUW, J. and STAFLEU, F.A. *Index Herbariorum: Collectors, Pt. 2* (1 and 2) 1954, 1957. [These two parts cover the names from *A* through *H*. only. I hope that this work will be started again.]
6. NEW YORK BOTANICAL GARDEN. "*Biographical Notes upon Botanists compiled by Dr. J. H. Barnhart*", G. K. Hall and Co. 3 vols. 1965.
7. PAMPANINI, R. "*La Flora del Caracorum*"....1930, Bologna. [He lists collectors with maps of their routes up to c. 1914.]

Abbreviations

- J. B. N. H. S.* .. Journal of the Bombay Natural History Society.
J. I. B. S. .. Journal of the Indian Botanical Society.
N-W. F. P. .. North-West Frontier Province now a geographical rather than a political term.
I.M.S. .. Indian Medical Service.
P. W. D. .. Public Works Dept.
R.A.M.C. .. Royal Army Medical Corps.
B. M. .. British Museum.
- b* = born; *d* = died; *Fl.* = flourished; *c.* = circa.