

A Bibliography of Plant Collectors in Bolivia

V. A. Funk and Scott A. Mori



SMITHSONIAN INSTITUTION PRESS

Washington, D.C.

1989

A B S T R A C T

Funk, V. A., and Scott A. Mori. A Bibliography of Plant Collectors in Bolivia. *Smithsonian Contributions to Botany*, Number 70, 20 pages, 1 figure, 1989.—Despite substantial plant collecting in Bolivia, there is no general reference that summarizes information about collectors. Here, we list individuals known to have collected plants in Bolivia and for whom there is published information concerning their lives or their Bolivian collections. For each, we include biographical information, dates of Bolivian collections, herbaria containing the Bolivian specimens, and pertinent references to publications by the collector, or about the collector, the specimens, or the expedition. We also include a section of general references which pertain to several collectors; these are cross-referenced under the discussion of each collector. The type of information available from each general reference is briefly described.

OFFICIAL PUBLICATION DATE is handstamped in a limited number of initial copies and is recorded in the Institution's annual report, *Smithsonian Year*. SERIES COVER DESIGN: Leaf clearing from the katsura tree *Cercidiphyllum japonicum* Siebold & Zuccarini.

Library of Congress Cataloging-in-Publication Data

Funk, V. A. (Vicki A.), 1947-

A bibliography of plant collectors in Bolivia.

(Smithsonian contributions to botany ; no. 70)

Bibliography: p.

Supt. of Docs. no.: SI 1.29:70

1. Plant collecting—Bolivia—Bio-bibliography. 2. Plant collectors—Bolivia—Bibliography. I. Mori, Scott A., 1941- . II. Title. III. Series.

QK1.S2747 no. 70 581 s 88-600284 [Z5354.B56] [QK26] [016.58'075'0984]

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A Bibliography of Plant Collectors in Bolivia

V. A. Funk and Scott A. Mori

Introduction

Data associated with plant specimens may be useful to botanists, systematists, ecologists, biogeographers, and other biologists. Unfortunately, label information, especially for older material, is often cryptic. As a consequence, potentially valuable data may be lost. Sometimes this information may be reconstructed from publications about the lives and travels of the collectors. There is, however, no way of locating this information other than by a priori knowledge of where it was published, unless it is published in the comprehensive botanical taxonomic review by Stafleu and Cowan (1976–1988).

Here, we provide quick access to published information on the collectors of Bolivian plants, up through 1985. This is not intended to be a comprehensive discussion on all botanists who have ever collected in Bolivia. Rather it is a quick reference to available published data. Citations included here fall into two categories: general and specific. *General* references contain information about several collectors. *Specific* references discuss only one or two collectors. Citations are provided within an alphabetical list of individuals known to have collected in Bolivia, and about whom descriptive material has been published. Pertinent general references are listed within appropriate collector discussions, and then cited in full within a complete list of general references presented alphabetically by author. Additional references, if not included in the general or specific lists, are cited in full where they appear in the text.

The cryptogamic flora (especially the Bryophyta) of Bolivia is better known than that of any other neotropical country. This is primarily the result of the work of Theodor Herzog, C. Müller, E.G. Britton, Robert Williams, and F.J. Hermann.

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Review Chairman: Laurence Skog, Smithsonian Institution. Reviewers: Timothy Plowman, Field Museum of Natural History; Harold Robinson, Smithsonian Institution.

The earliest student of Bolivian cryptogams was Müller. In his *Prodromus Bryologiae Bolivianae* (1897) Müller reported on the collections of Lorentz, Germain, Mandon, d'Orbigny, and Rusby. The *Prodromus* was the first comprehensive work on Bolivian bryophytes, although a year earlier E.G. Britton (1896, see under Rusby) had published an enumeration of the plants collected by H.H. Rusby in 1885 and 1886.

The works of Müller (1897) and E.G. Britton et al. (1896) were followed a few years later by treatments by Herzog and Williams. Herzog published a number of articles on the flora of Bolivia (1910 to 1945) that dealt specifically with his own extensive collections. Williams published two papers (1903, 1910) in which he enumerated his extensive Bolivian moss collections. The most recent work on the Bolivian cryptogamic flora was produced by F.J. Hermann (1976), who surveyed all of the literature from 1869 to 1974 and compiled a list of 1,222 species of mosses from Bolivia. The works of the five bryologists, Herzog, Müller, Britton, Williams, and Hermann, provide a relatively complete enumeration of Bolivian bryophytes.

Many individuals also collected fungi and lichens. Stevenson (1971) gives an international list of fungi collectors, the distribution of their specimens, and references to their collections. Hertel (1980) provides detailed information on international lichen collections.

The phanerogamic flora of Bolivia is not as well known and, although numerous collectors have visited Bolivia, no phanerogamic flora has been written. A checklist was prepared by R. C. Foster (1958) but, because of nomenclatural changes and much subsequent collecting, its usefulness has lessened. Nevertheless, it remains the best available local checklist for the phanerogamic flora.

Several individuals have either started floras of regions including Bolivia or have made contributions to one. Weddell began *Chloris Andina* in 1852. His original idea was to include the names, descriptions, and distributions of his own collections, and the alpine species collected by Humboldt in Colombia, Ecuador, and northern Peru, by Haenke, Meyen,

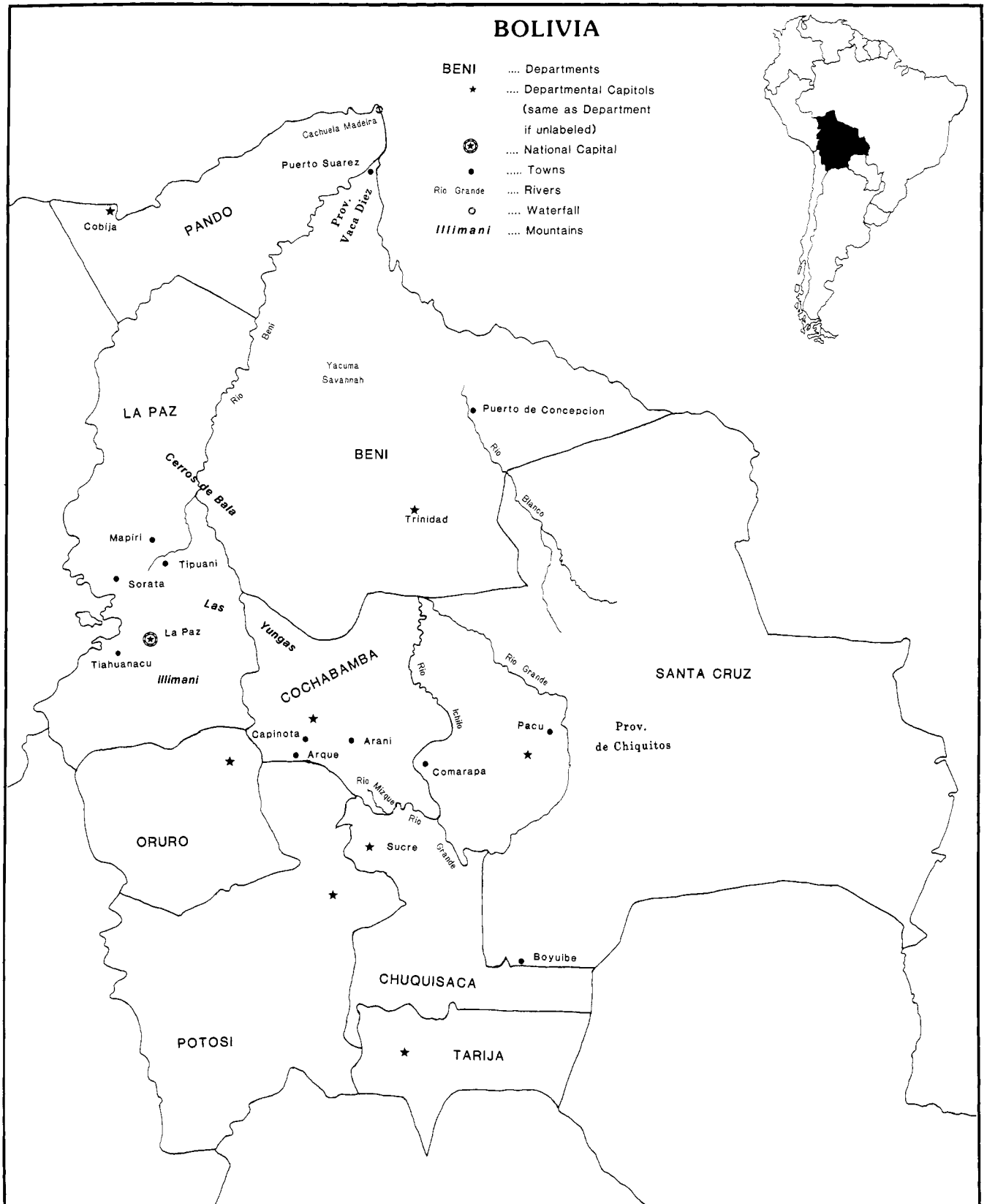


FIGURE 1.—Map of Bolivia, including regions of particular botanical collection.

d'Orbigny, Pentland, and Gay in Bolivia, and by Gay in Chile. The first volume treated the Asteraceae. The second volume, published in 1857, covered 42 additional taxa. The series was never completed because of personal problems faced by Weddell.

At the beginning of the 20th century, four independent projects pertaining to Bolivia were undertaken. Fries (1906–1909) published four papers that describe his Bolivian collections: the first covered the Asteraceae, the second the Malvales, the third 20 dicotyledonous families, and the fourth 21 additional dicotyledonous families, 15 monocotyledonous families, and the gymnosperms. Buchtien (1910) published a list that provides determinations for over 1,000 numbers from his Bolivian collections, including 200 pteridophytes. Identifications of the extensive collections of vascular plants by Herzog were published in parts with contributions by a variety of specialists (Herzog, 1913–1945; Koster, 1948, see under Herzog). Perkins (1912) provides identifications of the collections of Pflanz and Knoche as well as for some of those of Bang, Hauthal, and Bender; this publication included contributions by specialists, including Pilger on the Poaceae and Perkins on the Asteraceae.

The flora of Bolivia received virtually no study from the 1920s to 1946. At that time R.C. Foster organized what was intended to be a comprehensive flora. Experts were engaged to provide up-to-date treatments of their respective groups. Unfortunately, the project proceeded no further than a few revisions, such as that of the Iridaceae (Foster, 1946). Independent revisions for other groups of Bolivian plants include the Poaceae (Hitchcock, 1927), Rubiaceae (Standley, 1931), Bromeliaceae (Smith, 1969), *Vernonia* (Gleason, 1923), orchids (Schlechter, 1922), Labiatae (Epling, 1937), and *Stevia*, *Mikania*, and *Eupatorium* (Robinson, 1920, 1922, 1932). There are also many monographs on groups that include Bolivian species, but it is not within the scope of this paper to include all of those publications.

Two floras are available for subregions of Bolivia. Adolfo (1962, 1966) published identifications for his collections from the Valle de Cochabamba, and Peña de Flores (1901, 1944) listed his collections from eastern Bolivia.

Recently, the Missouri Botanical Garden has organized a "Proyecto Flora Boliviana" (Proyecto Flora Boliviana, Casilla 20206, La Paz) that is now underway. In conjunction with that project, James Solomon is actively collecting in Bolivia. In addition, since 1978 Stephan Beck (Herbario Nacional de Bolivia, Cajón Postal 20127, La Paz) has been involved in a collaborative project with the Universidad Mayor de San Andreas and the Universität Göttingen, Germany, to build the collections of the Herbario Nacional de Bolivia.

While many botanists have collected specimens in Bolivia, we have included here only those individuals for whom we have located some type of published information. Undoubtedly, we have overlooked collectors and information. We apologize for these omissions. James Solomon (Missouri

Botanical Garden) is now working on a comprehensive list of botanists that have collected in Bolivia. We recommend that all corrections and additions to this list be sent to him as well as to us.

ACKNOWLEDGMENTS.—This project was initiated in 1980. During ensuing years manuscript drafts have been read by many people. We thank all those who have contributed additions and corrections, including O. Almborn (LD), K. Barringer (NY), R. Barneby (NY), S. Beck (LPB), B. Boom (NY), W. R. Buck (NY), R. Cowan (US), J. L. Luteyn (NY), T. Plowman (F), S. Renner (US), H. Robinson (US), J. Solomon (MO), and J. Wurdack (US). We also thank S. Hanel (US), B. Kahn (US), A. Leininger (US), L. Lynas (NY), G. McKee (US), J. McKiernan (US), J. Moller (P), and R. Schallert (US), for their technical help on the manuscript.

Plant Collectors in Bolivia

This section includes information about individuals known to have collected plants in Bolivia and for whom published information is available. The arrangement is alphabetical by name of collector. To the extent that information is available, we provide for each collector (1) full name, (2) years of birth and death, (3) years in which the collector is known to have been in Bolivia, (4) the herbaria in which the collections are deposited, (5) citation of general references in which the collector is mentioned, and (6) specific references of articles written by or about the collector. In some cases, herbaria receiving complete specimen sets were specifically mentioned in one or more reference. We have indicated such mention by italicizing the appropriate herbarium abbreviation. Herbaria abbreviations follow Holmgren et al. (1981, Index Herbariorum, Part 1: The Herbaria of the World, edition 7, *Feddes Repertorium Specierum Novarum Regni Vegetabilis*, 106: vii + 1–452). We have inserted a question mark to indicate information that is missing, in doubt, or in disagreement between references. When death date is not indicated, collector is presumed to be alive.

ADOLFO MARÍA, H. (Brother Adolpho; former name, A. Jiménez) (1893–1983?)

Bolivia: From the 1950s until his death in Cochabamba; former professor at Colegio La Salle.

Herbaria: Herbario La Salle, US.

General References: Smith, 1969.

Specific References:

Adolfo M., H. 1962, 1966. *Nomina de las plantas recolectadas en el valle de Cochabamba*. Cochabamba: Herbario La Salle. Fascicle I, 1962; fascicle II, 1966.

ASPLUND, ERIK (1888–1974)

Bolivia: 1920–1921.

Herbaria: B, F, GH, NY, S, UPS, US, W.

General References: Epling, 1937; Foster, 1946; Hertel,

1980; Hitchcock, 1927; Holmgren, 1981; Robinson, 1932; Sayre, 1975; Smith, 1969; Standley, 1931; U.S. National Herbarium Collection List.

Specific References:

Asplund, E. 1925. Contributions to the Flora of the Bolivian Andes, I: Pteridophyta, Gymnospermae, Helobiae. *Arkiv för Botanik av k. Svenska Utgiviet Vetenskapsakademien*, 20(7):1-38. Introduction has a discussion of Asplund's trip to Bolivia, including an itinerary.

Thellung, A. 1925. Drei neue *Amaranthus*-Arten aus Bolivia. *Feddes Repertorium Specierum Novarum Regni Vegetabilis*, 21:322-325. Contains a brief description of three of Asplund's collecting areas in Bolivia.

BALLS, EDWARD K. (dates unknown)

Bolivia: 1939.

Herbaria: BM, E, GH, K, MO, SI, US.

General References: Coats, 1970; Lanjouw and Stafleu, 1957.

Specific References:

Hawkes, J.G. 1941. *Potato Collecting Expeditions in Mexico and South America*. Cambridge, England: Imperial Bureau of Plant Breeding and Genetics, School of Agriculture. Excellent reference that gives the locality of Balls' collections and provides a map of the expedition.

BANG, MIGUEL (1853-1895)

Bolivia: 1883 until his death at Bala, Bolivia.

Herbaria: B, F, M, MO, NY, US, and 13 other herbaria.

General References: Barnhart, 1965; Epling, 1937; Foster, 1946; Gleason, 1923; Hitchcock, 1927; Holmgren, 1981; Lanjouw and Stafleu, 1954; Maguire, 1958; Perkins, 1912; Robinson, 1920, 1922, 1932; Rusby, 1920; Schlechter, 1922; Smith, 1969; Smith and Schubert, 1945; Stafleu and Cowan, 1976-1988; Stevenson, 1971; U.S. National Herbarium Collection List; Urban, 1906; Zahlbruckner, 1897.

Specific References:

Rusby, H.H. 1893-1896. On the Collections of Mr. Miguel Bang in Bolivia, I-III. *Memoirs of the Torrey Botanical Club*, 3:1-67; 4:203-274; 6:1-130. The first article explains how Bang started collecting and where his specimens were distributed. All three articles list the specimens collected by species, and include localities.

Rusby, H.H. 1893. New Genera of Plants from Bolivia. *Bulletin of the Torrey Botanical Club*, 20:429-434. Four localities are listed with the new genera.

Rusby, H.H. 1907. An Enumeration of the Plants Collected in Bolivia by Miguel Bang, IV. *Bulletin of the New York Botanical Garden*, 4(4):309-470. A continuation of the series previously published in the

Memoirs of the Torrey Botanical Club (Rusby, 1893-1896, above).

BECK, STEPHAN (1944-)

Bolivia: Living and collecting in Bolivia since 1978.

Herbaria: LPB, NY, US, and others.

General References: Holmgren, 1981.

Specific References:

Beck, S.G. 1982. Inventario y estudio de la flora Boliviana. *Ecología en Bolivia* (Revista del Instituto de Ecología), 1:34-46.

Beck, S.G. 1983. Vegetationsökologische Grundlagen der Viehwirtschaft in den Überschwemmungs-Savannen des Río Yacuma (Departamento Beni, Bolivien). *Dissertationes Botanicae*, Band 80. Germany: J. Cramer.

Beck, S.G. 1984. Comunidades vegetales de las sabanas inundadizas en el NE de Bolivia. *Phytocoenologia*, 12(2/3):321-350. The appendix has a list of about 400 species with collection numbers from the area of the Yacuma Savanna.

Beck, S.G. 1985. Florula ecologica de Bolivia, I: Puna semiárida en el altiplano boliviano. *Ecología en Bolivia*, 6:1-41.

Ramírez, G.C., and S.G. Beck. 1981. Makrophytische Vegetation und Flora in Gewässern der Umgebung von La Paz, Bolivien. *Archiv für Hydrobiologie*, 91:82-100.

BEETLE, ALLAN ACKERMAN (1913-)

Bolivia: 1938-1939; part of the Goodspeed expedition (see Eyerdam).

Herbaria: CSAT, GH, UC, WYAC.

General References: Holmgren, 1981; Lanjouw and Stafleu, 1957.

BENDER, KARL (dates unknown)

Bolivia: Quechisla, 1909.

Herbaria: B.

General References: Lanjouw and Stafleu, 1954; Perkins, 1912; Robinson, 1920, 1932.

BLACK, G.A. (1910-1957)

Bolivia: Collected with the Portuguese botanist V. Cordeiro in Bolivia; mostly collected in Brazil.

Herbaria: IAC, IAN, U, US.

General References: Prance, 1971; Smith, 1969.

BOOM, BRIAN MOREY (1954-)

Bolivia: 1983-1984.

Herbaria: F, GH, K, LPB, MO, NY, US.

Specific References:

Boom, B.M. 1985. Amazonian Indians and the Forest Environment. *Nature*, 314:324. Gives locality and dates of forest inventory.

Boom, B.M. 1985. "Advocacy Botany" for the Neotropics. *Garden*, 9(3):24-28, 32. Provides a general account

of Boom's field activities, an ethnobotanical study of the Chácobo Indians in the Dept. of Beni, Prov. of Vaca Diez, where he collected 1127 numbers.

Boom, B.M. 1985. Ethnopteridology of the Chácobo Indians in Amazonian Bolivia. *American Fern Journal*, 75(1):19-21. Lists the ferns known to and used by the Chácobo, including Boom's voucher numbers for the collections; 35 collections cited.

Boom, B.M. 1985. A New Combination in *Palicourea* (Rubiaceae: Psychotriaceae) with Ethnobotanical Notes from Amazonian Bolivia. *Brittonia*, 37(2):209-210. Refers to Boom's collecting activity.

Webster, B. 1984. Tropical Forests Prove Cornucopia to Humans There. *The New York Times*, Sunday, Nov. 4, 1984. Provides a popular account of Boom's work in Amazonian Bolivia.

BRIDGES, THOMAS CHARLES (1807-1865)

Bolivia: 1844-1846.

Herbaria: B, BM, BR, CGE, G, GH, K, LE, LZ, NY, OXF, S, W.

General References: Barnhart, 1965; Candolle, 1880; Epling, 1937; Holmgren, 1981; Lanjouw and Stafleu, 1954; Paynter et al., 1975; Pennell, 1945; Robinson, 1932; Sayre, 1975; Schlechter, 1922; Standley, 1931; Steinberg, 1977; Turrill, 1920; Zahra, 1970.

Specific References:

Dall, W. H. 1866. Memorial Sketch of Thomas Bridges, Esq., F.L.S., F.Z.S., and Member of the California Academy of Sciences. *Proceedings of the California Academy of Sciences*, 3:236-237. An obituary with a list of Bridges' collecting trips.

Johnston, I.M. 1928. The Botanical Activities of Thomas Bridges. *Contributions of the Gray Herbarium of Harvard University*, 4(81):98-106. Provides a general outline of Bridges' South American travels.

BROOKE, WINIFRED M.A. (dates unknown)

Bolivia: December 1948-November 1950.

Herbaria: BM, F, G, NY, S, U, US.

General References: Barnhart, 1965; Lanjouw and Stafleu, 1954; Smith, 1969.

Specific References:

Brooke, W.M.A. 1951-1952. Some Bolivian Plants. *Proceedings South London Entomological and Natural History Society*, 1951-1952:37-143. A descriptive account of Brooke's trip.

Crabbe, J.A. 1967. Bolivian Pteridophytes Collected by Winifred Brooke. *British Fern Gazette*, 9:309-320. An enumeration of collections with localities and map.

BUCHTIEN, OTTO (1859-1946)

Bolivia: Director of Museo Nacional, La Paz, 1908-1923; earliest Bolivian collection was in 1906.

Herbaria: B, BAF, F, HBG, LD, LPB, NY, US (44,653 sheets), and many others.

General References: Condarca Morales, 1978; Epling, 1937; Foster, 1946; Gleason, 1923; Hitchcock, 1927; Holmgren, 1981; Lanjouw and Stafleu, 1954; Maguire, 1958; Robinson, 1920, 1922, 1932; Rusby 1920, Schlechter, 1922; Smith, 1969; Smith and Schubert, 1945; Stafleu and Cowan, 1976-1988; Standley, 1931; Stevenson, 1971; U.S. National Herbarium Collection List.

Specific References:

Buchtien, O. 1910. *Contribuciones a la flora de Bolivia, I*. La Paz. A checklist of Buchtien's Bolivian collections of vascular plants in which localities of the collections are given but not the numbers.

Cárdenas, M. 1969. *Disertaciones botánicas y amenidades biológicas*. Cochabamba: Los Amigos del Libro. States that Buchtien removed his plants when he left Bolivia and then sold them to US in 1922.

Hitchcock, A.S. 1925. Botanizing in Bolivia. *Scientific Monthly*, 20:163-175. A popular article on Hitchcock's Bolivian trip on which he traveled to some areas with Buchtien.

CABRERA, A. (1908-)

Bolivia: Several trips.

Herbarium: LP.

Specific Reference:

Cabrera, A. 1985. El género *Senecio* (Compositae) en Bolivia. *Darwiniana*, 26(1-4):79-217.

CÁRDENAS HERMOSA, MARTÍN (1899-1973)

Bolivia: Former Professor of Botany at Cochabamba University.

Herbaria: AMES, BOLV, COCH, F, GH, ILL, K, LIL (6000 numbers), NY, S, SI, US.

General References: Condarca Morales, 1978; Foster, 1946; Gleason, 1923; Holmgren, 1981; Lanjouw and Stafleu, 1954; Maguire, 1958; Robinson, 1932; Smith, 1969; Smith and Schubert, 1945; Standley, 1931; U.S. National Herbarium Collection List.

Specific References:

Calderón, J.C.V. 1973. Crónica: Semblanza del Doctor Martín Cárdenas Hermosa. *Boletín de la Sociedad Argentina de Botánica*, 15(2-3):294-299. An obituary that includes discussion of Cárdenas' field work.

Cárdenas, M. 1941. Contribución al estudio de la flora del sud de Bolivia. *Plantae Potosinae*, 1:1-26. Gives dates and localities for 95 of Cárdenas collections.

Cárdenas, M. 1941. *Contribuciones a la flora económica de Bolivia*. Cochabamba: Imprenta Universitaria. Discusses botanical collecting in Bolivia.

Cárdenas, M. 1951. Un viaje botánico por la provincia de Chiquitos del oriente Boliviano. *Revista de Agricultura* (Cochabamba), 7(6):3-17. Gives a detailed description of the area visited.

Cárdenas, M. 1969. *Disertaciones botánicas y amenidades*

- biologicas*. Cochabamba: Los Amigos del Libro.
- Cárdenas, M. 1969. *Manual de plantas económicas de Bolivia*. La Paz. Includes discussion of where economic plants are grown in Bolivia.
- Cárdenas, M. 1972. *Por las selvas, las montañas y los valles de Bolivia; memorias de un naturalista*. La Paz: Don Bosco. An autobiography that includes some discussion of collecting trips.
- Rusby, H.H. 1922. Report of Work on the Mulford Biological Exploration of 1921-1922. *Journal of the New York Botanical Garden*, 23:101-112. Provides a general description of the trip Cárdenas took with Rusby.
- Rusby, H.H. 1927. Descriptions of New Genera and Species of Plants Collected on the Mulford Biological Exploration of the Amazon Valley, 1921-1922. *Memoirs of the New York Botanical Garden*, 7:205-387. Contains a brief introduction on the trip Cárdenas took with Rusby and a list of plants collected with the localities listed.
- Whitaker, T.W. 1974. Martín Cárdenas Hermosa Botanist Extraordinary. *Plant Life*, 30:10-13. An obituary that includes discussion of Cárdenas' field work.
- CASTELNAU, COMTE FRANCIS L. DE LAPORTE DE (1812-1880)
Bolivia: Collected in Bolivia in 1845 with Weddell.
Herbaria: P.
General References: Condarca Morales, 1978; Lanjouw and Stafleu, 1954; Smith, 1969; Standley, 1931.
Specific References:
Castelnaud, F. 1850-1859. *Expedition dans les parties de l'Amérique du sud ... 1843 á 1847 ...* 3 volumes. Paris: P. Bertrand. Contains information on botany, zoology, and anthropology of the expedition (see also under Weddell).
Turrill, W.B. 1920. Botanical Exploration in Chile and Argentina. *Kew Bulletin*, 2:57-66. Castelnaud traveled from 1843-1847 in Chile, Colombia, Ecuador, Bolivia, and Peru, entering Bolivia in 1845 with Weddell, and collected plants used by Weddell in Chloris Andina.
- CLAUDE-JOSEPH, BROTHER (dates unknown)
Bolivia: 1919 (collected ~230 nos.).
Herbaria: US, W.
General References: Lanjouw and Stafleu, 1954; Sayre, 1975; Smith, 1969; Standley, 1931; U.S. National Herbarium Collection List.
- CONWAY, SIR WILLIAM MARTIN (1856-?)
Bolivia: Peaks of Sorata and Illimani, 1898-1899.
Herbaria: K.
General References: Condarca Morales, 1978; Lanjouw and Stafleu, 1954; Perkins 1912.
Specific References:
Conway, M. 1899. Explorations in the Bolivian Andes. *Journal of the Royal Geographic Society*, 14:14-34. Detailed discussion of his trip to the Andes (1898-1899) including a map.
Conway, M. 1901. *The Bolivian Andes, a Record of Climbing and Exploration in the Cordillera Real in the Years 1898 and 1899*. London. Popular book with detailed description of trip but little specific information on the plant collecting.
Evans, J. 1966. *The Conways*. London: Museum Press Limited. A general discussion of the life and travels of the family.
Hemsley, W.B., and H.H.W. Pearson. 1901. On a Small Collection of Dried Plants Obtained by Sir Martin Conway in the Bolivian Andes. *Journal of the Linnaean Society of Botany*, 35:78-90. Description of Conway's trip as well as identifications and localities of his collections.
- CORRELL, DONOVAN S. (1908-1983)
Bolivia: 1960.
Herbaria: US.
General References: Smith 1969.
- CUMING, HUGH (1791-1865)
Herbaria: BM, GL, K, LE, OXF, P, W.
General References: Coats, 1970; Epling, 1937; Lanjouw and Stafleu, 1954; Robinson, 1920; Sayre, 1975; Wagenitz, 1982; Zahlbruckner, 1897.
- CUTLER, HUGH CARSON (1912-)
Bolivia: 1942, 1948-1950 (including Brazil).
Herbaria: F, GH, R, US.
General References: Angeley, 1959; Lanjouw and Stafleu, 1954; Sayre, 1975; Smith, 1969; Smith and Schubert, 1945; U.S. National Herbarium Collection List.
Specific References:
Cantelow, E.D., and H.C. Cantelow. 1957. Biographical Notes on Persons in Whose Honor Alice Eastwood Named a Native Plant. *Leaflets of Western Botany*, 8:89. Brief biographic sketch in which the date of Cutler's Brazilian trip is listed (probably incorrectly) as 1943-1945.
Cárdenas, M. 1953. Crónica: Proyecto de colección de las variedades nativas de maíz en las Américas. *Revista de Agricultura* (Cochabamba), 11(8):43-45. Lists the individuals that have collected maize in Bolivia and gives some information on where they collected.
- DÍAZ DE ROMERO ASTURIZAGA, BELISARIO (1870-1940)
Bolivia: Former Professor at Universidad Mayor de San Andreas.
Herbaria: Whereabouts of collections unknown.
General References: Barnhart, 1965; Condarca Morales, 1978.
Specific References:
Cárdenas, M. 1969. *Disertaciones botánicas y amenidades*

- biológicas*. Cochabamba: Los Amigos del Libro. Díaz was primarily interested in geography and collected with and for Britton, Bang, and Rusby.
- Díaz Romero A., B. 1919. *Florula pacensis en el Boletín de Estadística y Estudios Geográficos de La Paz*. La Paz.
- EYERDAM, WALTER JACOB (1892–1975)
Bolivia: On second Goodspeed expedition (1938–1939), visiting Bolivia near the end of the trip.
Herbaria: A, F, G, GH, M, MICH, MO, SI, UC, US, WTU.
General References: Hertel, 1980; Lanjouw and Stafleu, 1957; Smith, 1969; U.S. National Herbarium Collection List.
Specific References:
Goodspeed, T.H. 1961. *Plant Hunters in the Andes*. Berkeley: University of California Press. Eyerdam traveled with A.A. Beetle on the Bolivian part of the second expedition. The collection book, which is at UC, has a brief discussion of the trip and a very general map.
Raff, K. 1970. Sketch of a Scientist, Walter Eyerdam. *Of Sea and Shore*, Fall 1970. General discussion of Eyerdam's life. It mentions that in Bolivia he collected mainly *Nicotiana* (Solanaceae).
- FAWCETT, MAJOR PERCY HARRISON (1867–1925)
Herbaria: Unknown; Fawcett lived in London so perhaps his collections are there. They are not in Bolivia.
Specific References:
Fawcett, B. 1953. *Exploration Fawcett*. London: Hutchinson. Biography put together from P.H. Fawcett's manuscripts, letters, log-books, and records. The same book was published in the United States as *Lost Trails, Lost Cities* by Funk and Wagnalls, New York, and in Spanish as *Través de la selva Amazonica: Exploración Fawcett* by Rodas, Madrid.
- FIEBRIG-GERTZ, KARL (1869–1951)
Bolivia: 1903–1904.
Herbaria: A, B, BM, F, GH, GOET, K, S, US, W, and others.
General References: Barnhart, 1965; Condarca Morales, 1978; Epling, 1937; Gleason, 1923; Herzog, 1923; Hitchcock, 1927; Lanjouw and Stafleu, 1957; Robinson, 1932; Schlechter, 1922; Smith, 1969; Standley, 1931; U.S. National Herbarium Collection List, Urban, 1906; Wagenitz, 1982.
Specific References:
Fiebrig-Gertz, K. 1911. Ein Beitrag zur Pflanzengeographie Boliviens. *Botanische Jahrbücher für Systematik*, 45:1–68. Presents descriptions of vegetation types of Bolivia as well as discussions of his collection trips.
Miller, L.E. 1918. *In the Wilds of South America*. London: Charles Scribner's Sons. Miller says Fiebrig-Gertz was a professor at the University of Paraguay, Trinidad.
- Urban, J.A. 1906. *Plantae Novae Andinae Imprimis Weberbauerianae*. *Botanische Jahrbücher für Systematik*, 37:373–463, 503–646. Describes at least 55 of Fiebrig's collections from Bolivia.
- FLEISCHMANN, ED. (dates unknown)
Bolivia: Rurrenabaque, 1930.
Herbaria: S.
General References: Smith, 1969.
- FOLLMANN, GERHARD (1930–)
Herbaria: Current location of specimens unknown.
Specific References:
Follmann, G. 1969 [1970]. Reisen in Bolivien und Peru. *Berichte der Deutschen Botanischen Gesellschaft*, 82:610.
- FOSBERG, FRANCIS RAYMOND (1908–)
Bolivia: 1947.
Herbaria: COL, F, MEDEL, US.
General References: Holmgren, 1981; Lanjouw and Stafleu, 1957.
- FOSTER, MULFORD B. (dates unknown)
Bolivia: 1948.
Herbaria: US.
General References: Lanjouw and Stafleu, 1957; Smith, 1969.
- FRIC, ALBERTO VOJTECH (1882–1944)
Bolivia: 1926–1929, possibly also on his 1900–1912 trip; also in Brazil, Paraguay, and Argentina between 1926–1929.
Herbarium: PR.
General References: Lanjouw and Stafleu, 1957.
Specific References:
Schuetz, B. 1970. A.V. Fric, Famous Cactus Hunter. *Cactus and Succulent Journal*, 42:130–132, 147, 161–162, 235–237. An obituary detailing the work and travels of Fric. Mentions that he had a personal herbarium, the current whereabouts of which is unknown.
- FRIES, ROBERT ELIAS (1876–1966)
Bolivia: Southern portion, 1902.
Herbaria: B, BR, CORD, G, K, S, UPS, US.
General References: Foster, 1946; Herzog, 1923; Hitchcock, 1927; Lanjouw and Stafleu, 1957; Robinson, 1920, 1932; Stafleu and Cowan, 1976–1988; Turrill, 1920.
Specific References:
Fries, R.E. 1906. Zur Kenntnis der Phanerogamenflora der Grenzgebiete zwischen Bolivia und Argentinien, I: Compositae. *Arkiv för Botanik Utgivet av k. Svenska Vetenskapsakademien*, 5(13):1–36, plates 1–3. Gives identification and localities of Fries' collections of composites.
Fries, R.E. 1906. Zur Kenntnis der Phanerogamenflora der Grenzgebiete zwischen Bolivia und Argentinien, II.

- Arkiv för Botanik Utgivet av k. Svenska Vetenskapsakademien, 6(2):1-16, plates 1-2. Gives identifications and localities of Fries' collections of Malvales.
- Fries, R.E. 1906. Zur Kenntnis der Phanerogamenflora der Grenzgebiete zwischen Bolivia und Argentinien, III: Einige gamopetale Familien. *Arkiv för Botanik Utgivet av k. Svenska Vetenskapsakademien*, 6 (11):1-32. Gives identification and localities of 20 dicotyledonous families collected by Fries.
- Fries, R.E. 1909. Zur Kenntnis der Phanerogamenflora der Grenzgebiete zwischen Bolivia und Argentinien, IV: Einige choripetale und monokotledone Familien. *Arkiv för Botanik Utgivet av k. Svenska Vetenskapsakademien*, 8(8):1-51, plates 1-2. Gives identification and localities of some of Fries' collections of choripetalous and monocotyledon families.
- Peterson, B. 1966. Robert Elias Fries. *Taxon*, 15:128. Brief obituary.
- FURLONG, CHARLES WELLINGTON (1874-1967)
Bolivia: 1926 (at least).
Herbaria: GH, NY.
General References: Sayre, 1975.
- GAY, CLAUDE (1800-1873)
Bolivia: Probably 1839 or 1840, mostly collected in Chile and Peru.
Herbaria: NY, P, PC, SGO, US, and many others.
General References: Barnhart, 1965; Hemsley and Pearson, 1901; Holmgren, 1981; Lanjouw and Stafleu, 1957; Sayre, 1975, 1977; Stafleu and Cowan, 1976-1988; Turrill, 1920; Wagenitz, 1982; Weddell, 1852, 1857.
- GERMAIN, FILIBERTO (Philibert) (1827-after 1897)
Herbaria: B, H, P, W.
General References: Holmgren, 1981; Lanjouw and Stafleu, 1957, Müller, 1897.
Specific References:
Porter, C. 1910. Antropología, flora y fauna Chileñas. *Anales de la Sociedad Científica Argentina*, 70:267-309. Gives a description of the scientific career of Germain.
- GIBBON, LARDNER (dates unknown)
Bolivia: Northern part, 1851 (may not have made herbarium specimens).
Specific References:
Goodman, E.J. 1972. *The Explorers of South America*. New York: MacMillan. Goodman states that Gibbon collected "seeds and plants which might be introduced into the United States."
Herndon, W.L., and L. Gibbon. 1854. *Exploration of the Valley of the Amazon: Made under the Direction of the Navy Department*. Two volumes. Washington: Nicholson Publishers. Presents illustrations and atlas. Volume 1 by Herndon, volume 2 by Gibbon.
- GOSLING (full name and dates unknown)
Bolivia: Eastern Bolivia.
General References: Standley, 1931.
- GOSSE, PHILIP HENRY (1810-1888)
Herbaria: G, K.
General References: Barnhart, 1965; Lanjouw and Stafleu, 1957; Turrill, 1920.
Specific References:
Fitz Gerald, E.A. 1899. *The Highest Andes*. London: Methuen and Co. The book contains two botanical appendices of the plants of the Andes. The plants were collected by Gosse.
- GRAF, KURT JEAN (1944-)
Bolivia: 1973-1975, 1977, 1981, 1984.
Herbaria: LPB, NY, Z.
Specific References:
Graf, K.J. 1979. *Untersuchungen zur rezenten Pollen- und Sporenflora in der nördlichen Zentralkordillere Boliviens und Versuch einer Auswertung von Profilen aus postglazialen Torfmooren*. Zurich: Philosophische Fakultät II (Habilitationsschrift).
- GROSS, FATHER (dates unknown)
Bolivia: La Paz.
Herbaria: B.
General References: Lanjouw and Stafleu, 1957; Smith, 1969.
Specific References:
Graf, K.J. 1981. Palynological Investigations of Two Post-glacial Peat Bogs Near the Boundary of Bolivia and Peru. *Journal of Biogeography*, 8:353-368.
Graf, K.J. 1985. Der Rezentpollenflug als Klimaindikator in den bolivianischen Anden. *Zentralblatt für Geologie und Paläontologie*, 1984, teil 1 (11/12):1679-1689.
- HAENKE (Haencke), THADDAEUS (Tadeo) (1761-1816 or 1817)
Bolivia: 1794, Cochabamba 1796-1816.
Herbaria: F, PR, GOET.
General References: Condarca Morales, 1978; Hemsley and Pearson, 1901; Holmgren, 1981; Lanjouw and Stafleu, 1957; Pennell, 1945; Schlechter, 1922; Stafleu and Cowan, 1976-1988; Wagenitz, 1982.
Specific References:
Ballivian, M.V., and P. Kramer. 1898. *Tadeo Haenke*. La Paz. A small book containing a biography and bibliography of Haenke.
Frontaura, Argandona M. 1971. *Descubridores y exploradores de Bolivia*. La Paz and Cochabamba: Los Amigos del Libro. General description of accomplishments.
Gickelhorn, J., and R. Gickelhorn. 1941. Th. Haenkes Bedeutung für die Erforschung Sudamerikas von

- Alexander V. Humboldt. *Mitteilungen der Geographischen Gesellschaft. Hamburg*, 47:269–364. Biography including information on explorations, an itinerary, and a map.
- Gickelhorn, R. 1938. Zur Klärung irrtümlicher Angaben über Haenkes Reisen in den Jahren 1793–1795. *Lotos*, 86:49–57. Gives an itinerary and a bibliography of Haenke's trip to South America; includes map.
- Gickelhorn, R. 1966. *Thaddaeus Haenke's Reisen und Arbeiten in Südamerikas nach Dokumentarforschungen in spanischen Archiven*. Wiesbaden. A detailed study on Haenke including his itinerary in South America.
- Haenke, T. 1974. *Tadeo Haenke, su abra en los Andes y la selva Boliviana, selección, prologo y notas de Guillermo Ovando-Sanz*. 235 pages. La Paz: Los amigos del Libro. Contains selected writings and bibliography of Haenke.
- Kühnel, J. 1960. *Thaddaeus Haenke: Leben und Wirken eines Forschers*. München: Verlag Robert Lerche, and Prague: Vormals Calve'sche Universitätsbuchhandlung. Biography with a detailed discussion of Haenke's collecting, bibliography, photography, maps, etc.
- Presl, K.B. 1825–1835. *Reliquiae Haenkeanae*. Prague. Taxonomic descriptions of Haenke's collections in which localities but no collection numbers are listed.
- Radt, C. 1964. Un explorateur peu connu de l'Amerique latine, Th. Haenke (1761–1817). *Journal d'Agriculture Tropicale et de Botanique Appliquée*, 11(10–11):480–483. Brief description of life and travels of Haenke.
- HAMMARLUND, CARL THEODOR WALDEMAR (1884–?)
Bolivia: 1934 (at least).
Herbaria: S.
General References: Barnhart, 1965; Lanjouw and Stafleu, 1957; Smith, 1969.
- HAUTHAL, RODOLFO (dates unknown)
Bolivia: 1906, Illimani and La Paz.
Herbaria: B, GOET, NY.
General References: Barnhart, 1965; Lanjouw and Stafleu, 1957; Perkins, 1912; Smith, 1969; Wagenitz, 1982.
Specific References:
Hauthal, R. 1911. *Reisen in Bolivien und Peru ausgeführt, 1908*. Leipzig. A detailed discussion of trip; includes map and photographs.
- HERZOG, THEODOR (Karl Julius) (1880–1961)
Bolivia: Two trips, 1907 and 1909–1912.
Herbaria: B, BM, G, JE, K, L, NY, PC, S, U, US, W, Z and others.
General References: Condarca Morales, 1978; Herzog, 1923; Hitchcock, 1927; Holmgren, 1981; Lanjouw and Stafleu, 1957; Pennell, 1945; Sayre, 1975, 1977; Schlechter, 1922; Smith, 1969; Stafleu and Cowan, 1976–1988; Standley, 1931; U.S. National Herbarium Collection List.
- Specific References:
Epling, C. 1950. Plants Collected by Th. Herzog on His Second Bolivian Journey 1910–11. *Blumea*, 6:355–357.
Grolle, R. 1961. Obituary. *Revue Bryologique et Lichénologique*, 30:155–162. Obituary with bibliography.
Herzog, T. 1909. XIV: Siphonogamea novae Bolivienensis in itinere per Boliviam orientalem ab auctore lectae. *Feddes Repertorium Novarum Specierum Regni Vegetabilis*, 7(4/6):49–69.
Herzog, T. 1910. Pflanzenformationen Ost-Bolivias. *Botanische Jahrbücher für Systematik*, 44:346–405. Presents ecological descriptions of Bolivian plant communities but also includes vernacular names of plants and a bibliography.
Herzog, T. 1913–1922. Die von Dr. Th. Herzog auf seiner zweiten Reise durch Bolivien in den Jahren 1910 und 1911 gesammelten Pflanzen. *Mededeelingen van's Rijks-Herbarium*, 19[1913]:1–84; 27[1915]:1–90, 191; 29[1916]:1–94; 33[1918]:1–19; 40[1921]:1–77; 46[1922]:1–31. First article gives a brief introduction to the trip and the rest provide descriptions and identifications of the collections from Herzog's second trip. See also Herzog, 1945.
Herzog, T. 1916. Die Bryophyten meiner zweiten Reise durch Bolivia. *Bibliotheca Botanica*, 87(1,2):1–347. Three articles that give identifications and localities for Herzog's collections. The trip is discussed in the introduction of the first article.
Herzog, T. 1921. Die Bryophyten meiner zweiten Reise durch Bolivia. *Bibliotheca Botanica*, 88:1–31.
Herzog, T. 1923. *Vom Urwald zu den Gletschern der Cordillere: Zwei Forschungsreisen in Bolivia*. Stuttgart: Strecker and Schröder. Talks about mountain climbing in 1907–1908 and 1910–1912. General travel log of trips.
Herzog, T. 1925. *Bergfahrten in Südamerika*. Stuttgart: Strecker and Schröder. Discusses the mountains climbed.
Herzog, T. 1945. Plantae a Th. Herzogio in itinere eius Bolivienensi altero annis 1910 et 1911 collectae, pars VII. *Blumea*, 5:641–685. Provides descriptions of some of Herzog's collections.
Koster, J.T. 1948. Plants Collected by Th. Herzog on his Second Bolivian Journey, 1910–1911. *Blumea*, 6: 266–273. Descriptions and identifications of collections.
- HIERONYMUS, GEORG HANS EMMO WOLFGANG (1846–1921)
Bolivia: 1874–1883, including Bolivia but mostly at Córdoba, Argentina (collected with Lorentz).
Herbaria: B, CORD, GH, L, MO, NY, P, SP, US.
General References: Barnhart, 1965; Epling, 1937; Herzog,

1923; Robinson 1920, 1932; Schlechter, 1922; Stafleu and Cowan, 1976–1988.

Specific References:

Vervoorst, F. 1972. Lorentz y Hieronymus: Primeiros botánicos científicos de la academia de ciencias de Córdoba. *Boletín de Academia Nacional de Ciencias*, 49:63–70. General description of Hieronymus' work, concentrating on work in Chile.

HITCHCOCK, ALBERT SPEAR (1865–1935)

Bolivia: 1923.

Herbaria: F, GH, HAC, K, KAS, MO, US.

General References: Barnhart, 1965; Hitchcock, 1927; Holmgren, 1981; Lanjouw and Stafleu, 1957; Stafleu and Cowan, 1976–1988; U.S. National Herbarium Collection List.

Specific References:

Hitchcock, A.S. 1925. A Botanical Trip to Ecuador, Peru and Bolivia. *Annual Report of the Regents, Smithsonian Institution*, 1924:335–351. A description of the 1923 trip to South America with an itinerary and photographs.

Hitchcock, A.S. 1925. Botanizing in Bolivia. *Scientific Monthly*, 20:163–175. A popular article on Hitchcock's Bolivian trip on which he traveled to some areas with Buchtien.

Hitchcock, A.S. 1927. The Grasses of Ecuador, Peru, and Bolivia. *Contributions from the United States Herbarium*, 24:291–556. Provides a brief itinerary of Hitchcock's trip as well as taxonomic treatment of his collections and others from these areas deposited at US. All of the specimens examined are listed by collector in the index, and a list of the localities within each country is provided.

HOLWAY, EDWARD WILLET DORLAND (1853–1923)

Bolivia: Sept., 1919–Oct., 1920; also in Chile, Peru, and Ecuador. Collected with his wife Mary Ellen Mortensen Holway.

Herbaria: B, MIN, MPPD, PUR, US, etc. (mostly fungi and voucher host plants).

General References: Barnhart, 1965; Epling, 1937; Holmgren, 1981; Lanjouw and Stafleu, 1957; Robinson, 1932; Stafleu and Cowan, 1976–1988; Stevenson, 1971.

Specific References:

Arthur, J.C. 1925. The Grass Rusts of South America; Based on the Holway Collections. *Proceedings of the American Philosophical Society*, 64:131–223. Contains a discussion of Holway's activities in the field followed with a detailed account of the species comprising the Holway collections.

Arthur, J.C. 1928. Professor Holway. *Mycologia*, 15:242–243. Obituary, in which are included dates of Holway's collecting trips to South America.

Blake, S.F. 1922. New South American Asteraceae

Collected by E.W.D. Holway. *Botanical Gazette*, 74:414–430. Descriptions of new species collected in Bolivia by Holway.

Dearness, J. 1946. E.W.D. Holway, 1853–1923: A Banker's Avocation. *Mycologia*, 38:231–239. A description of Holway's life and work; contains a review of the preparation and distribution of the Exsiccatae.

Jackson, H.S. 1926–1932. The Rusts of South America Based on the Holway Collections. *Mycologia*, 18[1926]:139–162; 19[1927]:51–63; 23[1931]:96–116, 332–364, 463–503; 24[1932]:62–186. These articles contain a detailed account of the species comprising the Holway collections. According to Stevenson (1971, see "General References") six pamphlets were issued with these fascicles, under the title *Reliquiae Holwayanae*, and were distributed from the herbarium of the late E.W.D. Holway, Department of Botany, University of Minnesota.

HUTCHISON, PAUL CLIFFORD (1924–)

Bolivia: On the fifth and sixth Goodspeed expeditions into Bolivia and other Andean countries, 1951–1958.

Herbaria: UC, US, USM.

General References: Holmgren, 1981; Lanjouw and Stafleu, 1957; Stafleu, 1967.

Specific References:

Goodspeed, T.H. 1961. *Plant Hunters in the Andes*. Berkeley: University of California Press. Hutchison traveled with the photographer W. H. Marshall. The field books from these two expeditions are at UC. Includes a very general map of the expeditions but only a few comments regarding the Bolivian portion of the trip.

ISERN Y BATLLÓ, JUAN (1825–?)

Bolivia: Between 1862 and 1865 he traveled many places in South America, including Bolivia.

Herbaria: F, MA.

General References: Chaudri, 1972.

Specific References:

Cuatrecasas, J. 1935. Plantae Isernianae. *Anales de la Universidad de Madrid (Ciencias)*, 3:206–265. Contains a brief discussion of Isern's travels on which he collected 8000 sheets. In Bolivia he visited principally Soroche, Tacora, La Paz, San Andres de Machachi, Tiahuanaco, and Guaqui.

JAFFUEL, P. FELIX (1874–1939)

Herbaria: CONC, GH, PC.

General References: Chaudri, 1972; Smith, 1969.

Specific References:

Theriot, I. 1929. Mousses de Bolivie récolté par le P. Felix Jaffuel. *Revista Chilena Historia Natural*, 33:135–139, plates 6–7. Provides itinerary of Jaffuel's trip, a list of species collected, and localities.

JAY, PIERRE (1870-1949)

Bolivia: La Paz and Sorata, 1893.

Herbaria: NY.

General References: Barnhart, 1965.

Specific References:

Britton, E.G. 1896. An Enumeration of the Plants Collected by H.H. Rusby in Bolivia, 1885-1886, II. *Bulletin of the Torrey Botanical Club*, 23:471-499. Describes acquisition of Jay's collection by NY in 1893 and briefly discusses Jay's collection localities.

Burgess, E.S. 1898. *Bulletin of the Torrey Botanical Club*, 25:517-499. Mentions briefly Britton's report on Jay collections.

JIMÉNEZ (see ADOLPHO)

JULIO, BROTHER (dates unknown)

Bolivia: 1923-1933.

Herbaria: BM, C, GH, NY, US, W.

General References: Chaudri, 1972; Epling, 1937; Robinson, 1932; Smith, 1969; Smith and Schubert, 1945; Standley, 1931; U.S. National Herbarium Collection List.

JUSSIÉU, JOSEPH DE (1704-1779)

Bolivia: 1743 (or 1744)-1755, also including Peru and Ecuador.

Herbaria: C, P, P-JU.

General References: Barnhart, 1965; Chaudri, 1972; Coats, 1970; Pennell, 1945; Schlechter, 1922; Stafleu and Cowan, 1976-1988.

KNOCHE, EDITH (dates unknown)

Bolivia: 1909.

Herbaria: B, H.

General References: Chaudri, 1972; Herzog, 1923.

Specific References:

Perkins, J. 1912. Beiträge zur Flora von Bolivia. *Botanische Jahrbücher für Systematik*, 49:171-233. Identifies the collections of Knoche made in Bolivia in 1904 and 1909.

KRACH, ERNST (1944-?)

Bolivia: 1979-1980.

Herbaria: LPB, M.

General References: Hertel, 1980.

KRUKOFF, BORIS ALEXANDER (1898-1984)

Herbaria: A, F, MICH, MO, NY, S, US, Y and others.

General References: Chaudri, 1972; Holmgren, 1981; Smith, 1969; Smith and Schubert, 1945; U.S. National Herbarium Collection List.

Specific References:

Landrum, L.R. 1986. The Life and Botanical Accomplishments of Boris Alexander Krukoff. *Advances in Economic Botany*, 2:1-96. A discussion of the botanical career of Krukoff, including itineraries and bibliography.

KUNTZE, CARL ERNST OTTO (1843-1907)

Bolivia: 1892.

Herbaria: CORD, F, G, K, L, MO, NY, US, and others.

General References: Barnhart, 1965; Chaudri, 1972; Gleason, 1923; Hertel, 1980; Holmgren, 1981; Robinson, 1920, 1932; Sayre, 1975, 1977; Schlechter, 1922; Smith, 1969; Smith and Schubert, 1945; Stafleu and Cowan, 1976-1988; Standley, 1931; Turrill, 1920; U.S. National Herbarium Collection List, Zahlbruckner, 1897.

Specific References:

Barnhart, J.H. 1913. Otto Kuntze. *Bulletin of the Charleston Museum*, 9:65-68. Gives a brief description of Kuntze's travels.

Britton, N.L. 1908. The Herbarium of the Late Dr. Otto Kuntze. *Journal of the New York Botanical Garden*, 9:19-21. Gives a brief description of Kuntze's travels and tells of the acquisition of 30,000 of his specimens by NY.

Cárdenas, M. 1953. Exploradores Botánicos de Bolivia. *Revista de Agricultura (Cochabamba)*, 8:20-42. Contains a brief discussion of Kuntze's travels and an itinerary in Bolivia.

Hoehne, F.C., M. Kuhlmann, and O. Handro. 1941. *O Jardim Botânico de São Paulo*. Brazil: Secretaria de Agricultura, Industria e Comercio de São Paulo. Gives a biographical sketch and itinerary.

Zanoni, T.A. 1980. Otto Kuntze, Botanist, I: Biography, Bibliography, and Travels. *Brittonia*, 32:551-571.

Zanoni, T.A., and E. K. Schofield. 1981. Otto Kuntze, Botanist, II: Type Specimens of Plants from His *Plantae Orientali-rossica*. *Brittonia*, 33:346-249.

Zanoni, T.A. and E.K. Schofield. 1981. Otto Kuntze, Botanist, III: Type Specimens of Fern, Gymnosperm, and Monocotyledon Taxa from His *Revisio Generum Plantarum*. *Brittonia*, 33:250-253.

LARA, R. (1934-)

Bolivia: 1959-?

Herbaria: LPB, LIL, MA, NY, SEL, UT.

Specific References:

Lara, R., and H. Alzereca H. 1982. *Contribuciones al conocimiento de la vegetación de las tierras*. Altas de Bolivia. 162 pages. La Paz: INFOL. Gives some locality and collection numbers.

LAU, ALFRED B. (dates unknown)

Bolivia: Several trips in the 1960s and 1970s.

Specific References:

Lau, A.B. 1971. Cactus Beside the Railroad Santa Cruz-Corumbá, Bolivia. *Cactus and Succulent Journal*, 43:187-191. Lau describes the areas where he collected on a train trip from Santa Cruz to Corumbá, Bolivia.

Lau, A.B. 1982, 1983. South American Cactus Log. *Cactus*

and *Succulent Journal*, 53[1982]:8-11, 74-76, 137-140; 54[1983]:33-36. Description of Lau's most recent trip to South America, in 1980. The pages listed describe the Bolivian parts of the trip.

LORENTZ, PAUL GÜNTHER (Pablo) (1835-1881)

Bolivia: 1870-1876, also visited Argentina and Uruguay (collected with Hieronymus).

Herbaria: B, CORD, GOET, K, M, NY, and others.

General References: Barnhart, 1965; Chaudri, 1972; Epling, 1937; Holmgren, 1981; Müller, 1897; Robinson, 1920, 1932; Sayre, 1975, 1977; Schlechter, 1922; Smith, 1969; Standley, 1931; Turrill, 1920; Urban, 1906.

Specific References:

Grisebach, A.H.R. 1874. *Plantae Lorentzianae, Bearbeitung der ersten und zweiten Sammlung des Professor Lorentz zu Cordoba*. Göttingen. Lists the total distribution of some Bolivian plants.

Müller, C. 1879, 1880. *Prodromus bryologiae Argentinae*, I and II. *Linnaea*, 42[1879]:217-460; 43[1880]:341-486. All bryophyte specimens collected by Lorentz included in these and the following article. The identifications and localities of the specimens are listed.

Müller, C. 1897. *Prodromus bryologiae Argentinae atque regionum vicinarum*, III. *Hedwigia*, 36:84-144. See also Müller, 1897, under "General References."

Stelzner, A. 1882. Zur Erinnerung an Dr. Paul Günther Lorentz. *Botanisches Centralblatt*, 9:450-468. This article has a detailed description of Lorentz's life and work and includes a bibliography.

Vervoorst, F. 1972. Lorentz y Hieronymus: Primeros Botánicos Científicos de la Academia de Ciencias de Córdoba. *Boletín de Academia de Ciencias*, 49:63-70. General description of Lorentz's work; concentrates on work in Chile.

MAHUNKA, S. (dates unknown)

Bolivia: 1966.

Herbaria: M (at least some specimens).

General References: Hertel, 1980.

MANDON, GILBERT (1799-1866)

Bolivia: Six years, ca. 1848-1853 (or 1856-1861).

Herbaria: B, BM, F, FH, G, GOET, K, MO, P, S, W, and others.

General References: Barnhart, 1965; Candolle, 1880, Epling, 1937; Foster, 1946; Hemsley and Pearson, 1901; Hertel, 1980; Hitchcock, 1927; Holmgren, 1981; Maguire, 1958; Müller, 1897; Robinson, 1920, 1922, 1932; Sayre, 1975; Schlechter, 1922; Smith, 1969; Smith and Schubert, 1945; Stafleu and Cowan, 1976-1988; U.S. National Herbarium Collection List; Urban, 1906; Weddell, 1852, 1857; Wagenitz, 1982.

Specific References:

Buchenau, F. 1874. Über die von Mandon in Bolivia gesammelten Juncaceen. *Abhandlungen herausgegeben vom naturwissenschaftlichen Vereine zu Bremen*, 4:119-134. Lists the species of Juncaceae collected by Mandon including locality data and descriptions.

Cárdenas, M. 1953. Exploradores botánicos de Bolivia. *Revista de Agricultura* (Cochabamba), 8:20-42. Contains a discussion of localities but no itinerary. Cárdenas states that Mandon collected 1,800 numbers from Sorata and that a catalogue of the plants of Bolivia is at P. Because the specimens were used by a number of people for describing new species the holotypes are scattered.

Fournier, E. 1862-1864. Nouvelles collections de plantes à vendre. *Bulletin de la Société Botanique de France*, 9[1862]:190-191; 11[1864]:234-235. Brief note about Mandon's collections.

Mandon, M.G. 1865. Première liste des plantes des Andes Boliviennes recueillies et distribuées: Compositae, Malvaceae, Tiliaceae, Algae. *Bulletin de la Société Botanique de France*, 12:79-83.

Reichenbach, H.G. 1900. Orchideae Mandonianae. *Xenia Orchidacea*, 3:17-27. A treatment of the orchid collections of Mandon.

Schultz-Bipontinus, C.H. 1865-1866. Enumeratio Cassiniacearum a cl. G. Mandon in Bolivia 1857-1861 lectarum. *Linnaea*, 34:527-536. Schultz simply lists the Compositae collected by Mandon and gives no collection data.

Weddell, H.A. 1867. Notice sur M. G. Mandon. *Bulletin de la Société Botanique de France*, 14:10-12. Obituary in which a description of Mandon's travels is included.

MEXIA, YNES ENRIQUETTA JULIETTA (1870-1938)

Bolivia: 1935 (52 numbers in Bolivia).

Herbaria: F, GH, ILL, UC, US, U.

General References: Barnhart, 1965; Holmgren, 1981; Stafleu and Cowan, 1976-1985; U.S. National Herbarium Collection List; Vegter, 1976.

Specific References:

Bracelin, H.P. 1938. Ynes Mexia. *Madroño*, 4:273-275. Short biography that includes a list of collecting trips. Bracelin states that Mexia collected 300 numbers in the Andean Highlands.

Bracelin, N.F. 1982. *The Ynes Mexia Botanical Collections, an Oral History Conducted 1965 and 1967 by Annetta Carter*. Berkeley: Regional Oral History Office, The Bancroft Library, University of California. A general discussion of Mexia's collecting trips, life, and family.

Goodspeed, T.H., and H.E. Stork. 1955. The University of California Botanical Garden Expedition to the

Andes (1935–1952). *University of California Publications in Botany*, 28:79–142. Gives complete collecting data and itineraries for all participants.

MEYEN, FRANZ JULIUS FERDINAND (1804–1840)

Bolivia: ca. 1831.

Herbaria: B, BM, BR, CAS, CGE, K, KIEL, L, LE.

General References: Barnhart, 1965; Hemsley and Pearson, 1901; Stafleu and Cowan, 1976–1985; Turrill, 1920; Vegter, 1976; Weddell, 1852, 1857.

Specific References:

Meyen, F.J.F. 1843. *Beiträge zur Botanik, gesammelt auf einer Reise um die Erde*. Breslau and Bonn. Discussion of Meyen's life in an introduction written by Ratzeburg; gives collection localities but no numbers for the collections.

Ratzeburg, J.T.C. 1874. *Forstwissenschaftliches Schriftsteller Lexikon*. Berlin: Nicolaischer Verlag. Biography and bibliography of Meyen with very little information about collecting trips.

MILLER, LEO E. (dates unknown)

Bolivia: 1915–1916.

Herbaria: L, US.

General References: Robinson, 1922.

Specific References:

Anonymous. 1916. Crónica: viajes y exploraciones. *Physis*, 2:203. A brief description of Miller's trip to the province of Salta.

Miller, L.E. 1919. *In the Wilds of South America*. New York: Charles Scribner's Sons. A detailed narrative of the expedition with many amusing stories but with little specific information on collections.

MONTALVO, MANUEL MARIANO (1816–?)

Bolivia: Professor and medical doctor at the Universidad de Chuquisaca, Sucre, Bolivia.

Herbaria: Current location of collections unknown.

Specific References:

Cárdenas, M. 1969. *Disertaciones botánicas y amenidades biológicas*. Cochabamba: Los Amigos del Libro. Contains a discussion of Montalvo's work and states that he was primarily interested in medicinal plants.

NELSON, IRA S. (dates unknown)

Bolivia: 1958, 1961 (perhaps more often).

Herbaria: US.

General References: Smith, 1969; Vegter, 1976.

ORBIGNY, ALCIDE CHARLES VICTOR DESSALINES, D' (1802–1857, or 1806–1876 according to Sayre, 1977).

Bolivia: 1826–1833 (and other South American countries).

Herbaria: DC, G, LR, P, W.

General References: Barnhart, 1965; Candolle, 1880, Condarca Morales, 1978; Epling, 1937; Hemsley and Pearson, 1901; Hitchcock, 1927; Holmgren, 1981; Müller, 1897; Paynter et al., 1975; Pennell, 1945;

Robinson, 1920; Sayre, 1975, 1977; Schlechter, 1922; Smith, 1969; Stafleu and Cowan, 1976–1988; Vegter, 1976; Weddell, 1852, 1857; Zahlbruckner, 1897.

Specific References:

Baulny, O. 1864. *Le Voyage dans L'Amérique Meridionale d'Alcide d'Orbigny*. A. Pau, Chez Marrimpouey Jeune. Portrait, itinerary, and description of voyage.

Britton, E.G. 1896. An Enumeration of the Plants Collected by H. H. Rusby in Bolivia, 1885–1886, II. *Bulletin of the Torrey Botanical Club*, 23:471–499. Contains some discussion of d'Orbigny's collections.

Frontaura Argandona, M. 1971. *Descubridores y Exploradores de Bolivia*. La Paz and Cochabamba: Los Amigos del Libro. General descriptions of d'Orbigny's accomplishments.

Gaudry, A. 1859. Alcide d'Orbigny, ses voyages et ses travaux. In *La Revue de Mondes*, pages 816–847. Paris.

Goodman, E.J. 1972. *The Explorers of South America*. New York: MacMillan. Contains two pages of discussion of d'Orbigny's travels in Bolivia.

Heron-Allen, E. 1917. Presidential Address, 1916–1917: Alcide d'Orbigny, His Life and Work. *Journal of the Royal Microscopical Society of London*, 1917:1–105. A detailed biography of d'Orbigny with a bibliography and some discussion of his South American collecting trip.

Orbigny, A.D. d' 1836. *Voyage Pittoresque dans les deux Ameriques*. Paris: L. Tenre and Henri Dupuy. A discussion of the 1826–1833 trip, including a map.

Orbigny, A.D. d' 1846. *Voyage dans l'Amérique Meridionale ... 1826–1833 ...* Volume 3, part 2 (Geographie). Paris: P. Bertrand. Provides a description of d'Orbigny's trip to South America.

Orbigny, A.D. d' 1847. *Voyage dans l'Amérique Meridionale ... 1826–1833 ...* Volume 4, part 3 (Oiseaux). Paris: P. Bertrand.

Orbigny, A.D. d' 1847. *Voyage dans l'Amérique Meridionale ... 1826–1833 ...* Volume 8 (Atlas). Paris: P. Bertrand.

Orbigny, A.D. d' 1858. *Viajes por Bolivia, I Tomo*. 285 pages. La Paz: Ministerio de Educación y Bellas Artes. Descriptions of d'Orbigny's travels in Bolivia.

Papavero, N. 1971. *Essays on the History of Neotropical Dipterology with Special Reference to Collectors, (1750–1905)*. Brazil: Universidad de São Paulo. Lists the localities visited by d'Orbigny along with useful maps of his travels. States that the total number of plants collected by d'Orbigny on the trip was 3000.

Rémy, J. 1846, 1847. *Analecta Boliviana, I and II. Annales des Sciences Naturelles, Botanique*, series 3, 6[1846]:345–357, 8[1847]:224–240. These articles contain descriptions of plants collected by d'Orbigny and of some of the areas where he collected.

PEARCE, RICHARD WILLIAM (ca. 1835–1868)

Bolivia: Pearce was in Chile from 1859–1866 and frequently traveled into Bolivia.

Herbaria: BM, K.

General References: Coats, 1970; Hertel, 1980; Robinson, 1932; Smith, 1969; Standley, 1931; Turrill, 1920; Vegter, 1976.

Specific References:

Veitch, J.H. 1906. *Hortus Veitchii*. Pages 45–48. Chelsea, London: James Veitch and Sons, Ltd. Biography of Pearce.

Wynne, W. 1888. *The Tuberous Begonia, Its History and Cultivation*. London: Gardening World Office. Contains information on Pearce's collections.

PEÑA DE FLORES, PEDRO RAFAEL (1822–1901)

Bolivia: Professor of natural history at the University at Santa Cruz, Bolivia.

Herbaria: Current location of collections unknown.

General References: Barnhart, 1965; Condarca Morales, 1978.

Specific References:

Cárdenas, M. 1969. *Disertaciones botánicas y amenidades biológicas*. Cochabamba: Los Amigos del Libro. Describes Peña de Flores' life and work and states that he was primarily interested in local floras.

Peña de Flores, P.R. 1901. *Flora Crucena*, 1st edition. Sucre, Bolivia: Pizarro. A flora in which the plants are listed by both common and scientific names.

Peña de Flores, P.R. 1944. *Flora Crucena*, 2nd edition. La Paz, Bolivia: Biblioteca Boliviana, Editorial del Estado. Contains additional information.

PENTLAND, JOSEPH BARCLAY (1797–1873)

Bolivia: 1826–1828, 1836–1839, 1851.

Herbaria: K, OXF, P.

General References: Barnhart, 1965; Epling, 1937; Foster, 1946; Müller, 1897; Robinson, 1922; Standley, 1931; Steinberg, 1977; Vegter, 1976.

Specific References:

Rémy, J. 1846, 1847. *Analecta Boliviana*, I and II. *Annales des Sciences Naturelles, Botanique*, series 3, 6[1846]:345–357; 8[1847]:224–240. These articles have descriptions of the plants collected and some discussion of the collecting areas.

PFLANZ, KARL (Carl) (1872–1925)

Bolivia: High elevations, 1909.

Herbaria: B, F, US.

General References: Barnhart, 1965; Herzog, 1923; Hitchcock, 1927; Robinson, 1920; Smith, 1969; Standley, 1931; U.S. National Herbarium Collection List; Vegter, 1976.

Specific References:

Anonymous. 1925. Karl Pflanz. *Notizblatt des königlichen Botanischen Gartens und Museums zu Berlin*, 9:406–

407. An obituary in which Pflanz's collecting is discussed.

Perkins, J. 1912. Beiträge zur Flora von Bolivia. *Botanische Jahrbücher für Systematik*, 49:171–233. Identifies the collections of Pflanz collected in Bolivia from 1907–1910.

Pflanz, K. 1923. Der bolivianische Gran Chaco: Beitrag zur Kenntnis der Kakteen-Gebiete im inneren Süd-Amerikas. *Zeitschrift für Sukkulantenkunde*, 1:2–6. Mostly a discussion of the vegetation of the areas in question.

Vaupel, F. 1923. Zwei neue Peireskien aus Bolivien. *Zeitschrift für Sukkulantenkunde*, 1:55–57. Species are described from Pflanz's collections with some discussion of the collecting areas.

Vaupel, F. 1923. *Echinocactus pflanzii* Vpl. spec. nov. *Zeitschrift für Sukkulantenkunde*, 1:83–84. The collecting trip is briefly described.

RATIBOR UND CORVEY, EGON VON VICTOR MORITZ KARL MARIA, PRINCE (also known as James West) (1886–1939)

Bolivia: Bolivia and other South American countries, 1935–1938.

Herbaria: CARL, GH, MO, NA, UC, US.

General References: Smith, 1969; Smith and Schubert, 1945 (as West).

Specific References:

Anonymous. 1967. Incredible, Unforgettable James West, Plantsman (1886–1939). *Journal of the Californian Horticultural Society*, 28:180–181, 184–187, 196. Contains a biography that includes the dates of his collecting trips.

Goodspeed, T.H. 1961. *Plant Hunters in the Andes*. Berkeley: University of California Press. Ratibor traveled on the first Goodspeed expedition, 1935–1936, and returned again after the trip to Peru, Bolivia, and Argentina before returning to Germany in 1938. The account by Goodspeed gives a very general map and brief description of the expeditions.

RAUH, WERNER (1913–)

Herbaria: B, HEID, M, PRE, ZSS.

General References: Holmgren, 1981; Stafleu and Cowan, 1976–1988; Vegter, 1976; Zahra, 1970.

RAUSCH, W. (dates unknown)

Herbaria: ZSS.

General References: Holmgren, 1981; Zahra, 1970.

RITTER, F. (dates unknown)

Herbaria: ZSS.

General References: Zahlbruckner, 1897; Zahra, 1970.

ROSE, JOSEPH NELSON (1862–1928)

Bolivia: Several trips.

Herbaria: NY, US.

General References: Barnhart, 1965; Epling, 1937; Hertel, 1980; Sayre, 1975; Smith, 1969; U.S. National Herbarium Collection List.

RUSBY, HENRY HURD (1855–1940)

Bolivia: 1885–1887 and 1921–1922 (Bolivia and Brazil).

Herbaria: B, F, GH, K, MICH, NY, US, and others.

General References: Barnhart, 1965; Epling, 1937; Foster, 1946; Gleason, 1923; Hitchcock, 1927; Holmgren, 1981; Maguire, 1958; Müller, 1897; Paynter et al., 1975; Pennell, 1945; Prance, 1971; Robinson, 1920, 1922, 1932; Rusby, 1920; Sayre, 1975; Schlechter, 1922; Smith, 1969; Smith and Schubert, 1945; Stafleu and Cowan, 1976–1985; Standley, 1931; Urban, 1906; Vegter, 1976.

Specific References:

Britton, E.G. 1888. An Enumeration of the Plants Collected by H.H. Rusby in Bolivia, 1885–1886, I. *Bulletin of the Torrey Botanical Club*, 15:247–253.

Britton, E.G. et al. 1896. An Enumeration of the Plants Collected by H.H. Rusby in Bolivia, 1885–1886, II. *Bulletin of the Torrey Botanical Club*, 23:471–499.

Britton, N.L. 1889–1893. An Enumeration of the Plants Collected by Dr. H.H. Rusby in South America 1885–1886, IV–XXIII. *Bulletin of the Torrey Botanical Club*, 16[1889]:13–20, 61–64, 163–160, 189–192, 259–262, 324–327, 17[1890]:9–12, 53–60, 91–94, 211–214, 281–284; 18[1891]:35–38, 107–110, 261–264, 331–334; 19[1892]:1–4, 148–151, 263–266, 371–374; 20[1893]:117–140.

Cárdenas, M. 1953. Exploradores botánicos de Bolivia. *Revista de Agricultura* (Cochabamba), 8:20–42. Describes Rusby's travels in Bolivia.

MacCreagh, G. 1926. *White Waters and Black*. New York: The Century Co. general account of Mulford Biological Expedition. Mentions no names but Rusby, White, and Cárdenas were on the trip.

Rusby, H.H. 1888–1893. An Enumeration of the Plants Collected by Dr. H.H. Rusby in South America 1885–1886. *Bulletin of the Torrey Botanical Club*, 15[1888]:177–184; 25[1898]:495–500, 542–545; 26[1899]:145–152, 189–200; 27[1900]:22–31, 69–84, 124–137; 28[1901]:301–313; 29[1902]:694–704.

Rusby, H.H. 1922. Report of Work on the Mulford Biological Exploration of 1921–1922. *Journal of the New York Botanical Garden*, 29:101–112. Provides a general description of the expedition.

Rusby, H.H. 1927. Descriptions of New Genera and Species of Plants Collected on the Mulford biological Exploration of the Amazon Valley, 1921–1922. *Memoirs of the New York Botanical Garden*, 7:205–287. Provides a short description of the trip (2,300 collections) with the collections listed by species with

their localities.

Rusby, H.H. 1932. *Jungle Memories*. New York: McGraw-Hill Co. A detailed but popular description of Rusby's 1885–1887 trip which includes maps of routes.

Spruce, R. 1889. Hepaticae Bolivianae: in Andibus Boliviae Orientalis, annis 1885–6, a cl. H.H. Rusby lectae. *Memoirs of the Torrey Botanical Club*, 1:113–140. Describes Rusby's collections of hepatics, giving locations and collection numbers.

Woodward, C.H. 1941. Henry Hurd Rusby—Explorer, Professor, Reformer, Botanist. *Journal of the New York Botanical Garden*, 42:43–46. A moderately long obituary with a little information on Rusby's collecting trips.

SANDEMAN, CHRISTOPHER ALBERT WALTER (1882–1951)

Bolivia: 1942 (crossed Mato Grosso, Brazil, to Bolivian border), 1945.

Herbaria: K, OXF.

Specific References:

Clokier, H.N. 1964. *An Account of the Herbaria of the Department of Botany in the University*. Oxford: Oxford University Press.

Sandwith, N.Y. 1953. Obituary of Christopher Albert Walter Sandeman. *Proceedings of the Linnaean Society of London*, 164:280–282.

SCHMIDT, EBERHARD (dates unknown)

Bolivia: 1951–1952 (collection from 200 trees, including wood samples).

Herbaria: HBG, M, SI.

Specific References:

Unpublished list for the *Index Herbariorum's* Index to Collectors, available at NY.

SEFVE, SVEN IVAR (1886–1953)

Bolivia: 1920.

Herbarium: S.

Specific References:

Asplund, E. 1925. Contributions to the Flora of the Bolivian Andes, I: Pteridophyta, Gymnospermae, Helobiae. *Arkiv för Botanik Utgivet av k. Svenska Vetenskapsakademien*, 20(7):1–38. Sefve (a Swedish palaeozoologist) collected on part of Asplund's 1920–1921 trip.

SELER, GEORG EDUARD (EDUARD GEORG) (1849–1922)

Bolivia: La Paz (collected with his wife Caecilie Sachs), 1910.

Herbaria: A, B, CAS, DS, F, GH, K, MEXU, MO, NY, US.

General References: Barnhart, 1965; Stafleu and Cowan, 1976–1988; Standley, 1931.

Specific References:

Lehmann, W. 1922. *Festschrift Edward Seler*. Stuttgart: Verlag von Strecker und Schröder. Lists Seler's publications and provides an itinerary.

- Loesener T. 1922. Eduard Selers Heimgang. *Feddes Repertorium Specierum Novarum Regni Vegetabilis*, 18:347. Obituary.
- Loesener, T. 1923. Eduard Seler. *Verhandlungen des Botanischen Vereins Provinz Brandenburg*, 65:78-83. Obituary recording his life and travels.
- Loesener, T. 1924. Nekrolog deutscher Botaniker, Eduard Seler. *Botanisches Archiv, Zeitschrift für die Gesamte Botanik*, 7(1-2):1-4. Obituary in which a general outline of his travels is given.
- SENN, HAROLD ARCHIE (1912-?)
Bolivia: 1948.
Herbaria: BR, C, DAO, DPU, E, GB, MO, TRT, U, US.
General References: Barnhart, 1965; Stafleu and Cowan, 1976-1988.
- SHEPARD, MRS. REED S. (dates unknown)
Bolivia: 1920.
Herbaria: CAS, GH, NY, US.
General References: Smith, 1969.
- SMITH, HERBERT HUNTINGTON (1852-1919)
Bolivia: 1881-1886 expedition to South America that briefly visited Bolivia.
Herbaria: CM, MIL, NY, US.
General References: Barnhart, 1965; Holmgren, 1981; Maguire, 1958; Sayre, 1975; Stafleu and Cowan, 1976-1988.
Specific References:
Holland, W.J. 1919. Herbert Huntington Smith. *Science*, 49:481-483. Obituary in which some discussion of Smith's travels is given.
Papaver, N. 1971. *Essays on the History of Neotropical Dipterology with Special Reference to Collectors, (1750-1905)*. Brazil: Universidad de São Paulo. Describes Smith's journey, listing the major cities visited and dates.
- STEINBACH, JOSÉ. (dates unknown)
Bolivia: 1915-1929.
Herbaria: A, BAF, F, NY, S, SI, UPS, US, and others.
General References: Barnhart, 1965; Epling, 1937; Hitchcock, 1927; Holmgren, 1981; Maguire, 1958; Paynter et al., 1975; Robinson, 1920, 1932; Smith, 1969; Smith and Schubert, 1945; Standley, 1931; U.S. National Herbarium Collection List.
Specific References:
Anonymous. 1916. Crónica: viajes y exploraciones. *Physis*, 2:203. A brief description of Steinbach's natural history collections for the Carnegie Museum of Natural History.
- STEINBACH, ROY (grandson of José Steinbach) (dates unknown).
Bolivia: Lives in Bolivia.
Herbaria: LPB, MO, NY, US, and others.
- General References: Holmgren, 1981.
- STEINMANN, JOHANN HEINRICH CONRAD GOTTFRIED GUSTAV (1856-1929)
Bolivia: 1903-1904.
Herbarium: B.
General References: Barnhart, 1965; Herzog, 1923; Stafleu and Cowan, 1976-1988.
Specific References:
Hoek, H. 1905-1907. Bergfahrten in Bolivia I-III. *Zeitschrift des Deutschen Osterreichischen Alpenvereins*, 36[1905]:165-194; 37[1906]:162-190; 38[1907]:121-148.
Hoek, H., and G. Steinmann. 1905. Erläuterung zur Routenkarte der Expedition Steinmann und Hoek, V: Bistram in den Anden von Bolivien 1903-1904. *Petermanns Geographische Mitteilungen. Ergänzungsband*, 1905.
Solms-Laubach, H.G. 1907. Über eine kleine Suite hochandiner Pflanzen aus Bolivien, die Prof. Steinmann von seiner Reise im Jahre 1903 mitgebracht hat. *Botanische Zeitung* (Berlin), 65(7):119-138. Contains a brief description of Steinmann's trip and a listing of the plants collected including localities.
- STÜBEL, MORITZ ALPHONS (1835-1904)
Bolivia: 1868.
Herbaria: B.
General Reference: Barnhart, 1965; Robinson, 1932; Schlechter, 1922.
Specific References:
Hieronymus, G.H. 1896. *Plantae Stuebelianae novae, quas descripsit adjuvantibus aliis auctoribus. Botanische Jahrbücher für Systematik*, 21:306-378. A brief introduction includes some description of Stubel's trip to Bolivia. New species based on Stubel's collection are described, including localities and collection numbers.
Hieronymus, G.H. 1906-1909. *Plantae Stuebelianae, I-IV: Pteridophyta. Hedwigia*, 45[1906]:215-238; 46[1907]:322-364; 47[1908]:204-249; 48[1909]:215-303. A general description of Stubel's collecting trip with a list of plants collected.
- TATE, GEORGE HENRY HAMILTON (1894-1953)
Bolivia: 1926 (field notes at NY).
Herbaria: LPB, NY, US.
General References: Barnhart, 1965; Epling, 1937; Hitchcock, 1927; Paynter et al., 1975; Robinson, 1932; Smith, 1969; Smith and Schubert, 1945; Stafleu and Cowan, 1976-1988; Standley, 1931.
Specific References:
Boom, B. 1981. The Ladew Expedition to Bolivia and Peru: George Tate's Botanical Collections. *Brittonia*, 33:482-489. Gives a brief biography with emphasis on Tate's trip to Bolivia and Peru. Includes an

- itinerary and a map.
New York Botanical Garden Index to Collectors, File 193.
Unpublished copy of Tate's field notes. Nos. 1-1215 list 24 Bolivian localities. Available at NY.
- Rusby, H.H. 1923. New Species of Plants of the Ladew Expedition to Bolivia. *Phytologia*, 1:49-80. Table with distribution and altitude of collections and an itinerary.
- THERESE, PRINZESSIN VON BAYERN (dates unknown)
Bolivia: October 1898.
Specific References:
Therese, Prinzessin von Bayern. 1902. Auf einer Reise in Westindien und Südamerika gesammelte Pflanzen. *Beihefte zum Botanischen Centralblatt*, 13:1-90.
- TROLL, KARL (Carl) (1899-1975)
Bolivia: 1926-1929, but also including Colombia, Ecuador, and Peru.
Herbaria: B, JE, PC, M.
General References: Barnhart, 1965; Condarca Morales, 1978; Hertel, 1980; Smith, 1969; Stafleu and Cowan, 1976-1988.
Specific References:
Herzog, T. 1934. Die Bryophyten der Andenreisen von C. Troll. *Hedwigia*, 74:79-114. Descriptions and localities of the bryophytes collected by Troll.
Theriot, I. 1938. Complément à la flore bryologique de la Bolivie et de la Colombie. *Revue Bryologique et Lichénologique*, 11:40-68. Provides descriptions of bryophytes and their localities from Bolivia and Columbia.
Troll, K. 1928. Die zentralen Anden: Die bisherigen Ergebnisse seiner Zentralanden-Expedition im Rahmen einer physiographischen Skizze. In *Jubiläums-Sonderband 1928, der Zeitschrift der Gesellschaft für Erdkunde zu Berlin*, pages 92-118. This paper has a detailed description of the trip and a map.
Troll, K. 1929. Reisen in den östlichen Anden Boliviens. *Petermanns Mitteilungen aus Justus Perthes' Geographischen Anstalt*, 7/8:181-188. This article contains a detailed discussion of trip; including maps.
Troll, K. ca. 1930. Meine Anden Expedition, 1926-1929. *Deutsche Forschung*, 3(?):13-25. This article contains a general description of the 1926-1929 trip along with maps and a list of localities. The indicated pages mention plants collected on the altiplano and in southern Bolivia. Troll says he collected 3800 numbers and that they are deposited in Munich and in Berlin.
Troll, K. ca. 1970. VI, Die tropischen Andenländer: Bolivien, Peru, Ecuador, Columbien und Venezuela. In *Handbuch der Geographischen Wissenschaft*, Lieferung 25 (Süd-Amerika), heft 10, pages 309-518. A detailed account of the entire expedition with a listing of localities in the appendices.
- UGENT, D. (dates unknown)
Bolivia: 1963, Sucre.
Herbaria: BM, DS, F, GH, MO, MSC, SIU, UC, US, WIS.
General Reference: Smith, 1969.
Specific References:
Ugent, D. 1966. *Brittonia*, 18:262. New species descriptions.
Ugent, D. 1966. *Phytologia*, 13:147. New species descriptions.
Ugent, D. 1977. *Rhodora*, 79:365. New species descriptions.
- ULE, ERNST HEINRICH GEORGE (1854-1915)
Bolivia: 1902 (mostly collected in Brazil).
Herbaria: B, H-BG, H-BR, and others.
General References: Barnhart, 1965; Sayre, 1977; Stafleu and Cowan, 1976-1988; Urban, 1906.
Specific References:
Harms, H. von. 1915. Ernst Ule. *Verhandlungen des Botanischen Vereins für die Provinz Brandenburg*, 57:150-184. Provides a thorough description of Ule's botanical explorations and research interests, including a list of his publications.
- VOGEL, STEFAN (dates unknown)
Bolivia: 1964, 1965 (vicinity of Comarapa).
Herbaria: US, WU.
General References: Smith, 1969.
Specific References:
Vogel, S. 1974. Ölblumen und ölsammelnde Bienen. *Akademie der Wissenschaften und der Literatur (Mainz), Reihe Tropischer und Subtropischer Pflanzenwissenschaft*, 7:11. Wiesbaden: F. Steiner Vlg.
- WEDDELL, HUGO ALGERNON (1819-1877)
Bolivia: 1845-1848, 1851.
Herbaria: BM, G, G-DC, L, MO, NY, P, PC and others.
General References: Barnhart, 1965; Candolle, 1880, Condarca Morales, 1978; Epling, 1937; Hemsley and Pearson, 1901; Hertel, 1980; Maguire, 1958; Pennell, 1945; Prance, 1971; Sayre, 1975; Smith, 1969; Smith and Schubert, 1945; Stafleu, 1967, Stafleu and Cowan, 1976-1988, Standley, 1931; Urban, 1906; Zahlbruckner, 1897.
Specific References:
Cárdenas, M. 1952. Exploradores botánicos de Bolivia. *Revista de Agricultura (Cochabamba)*, 10(7):26-45. A general description of Weddell's travels in Bolivia.
Fournier, M.E. 1880. *H.A. Weddell, notice biographique extrait du compte rendu stenographique du Congrès International de Botanique et d'Horticulture, tenu à Paris du 16-24 Août 1878*. Paris: Imprimerie Nationale.
Goodman, E.J. 1972. *The Explorers of South America*.

- New York: MacMillan. Briefly describes Weddell's trips to Bolivia.
- Hoehne, C., M. Kuhlmann, and O. Handro. 1941. *O Jardim Botânico de São Paulo*. Brazil: Secretaria da Agricultura, Indústria e Comercio de São Paulo. A simple biographical sketch.
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