

## Supplemental Material 1: Two lists of articles discussing various herbarium procedures and collecting techniques

### List 1: Publications organized by Taxon or Group

Algae: González-González J, Novelo-Maldonado E (1986) Algas. Pages 47–54, in Lot A, Chiang F (eds) Manual de Herbaria: Administracion y Manejo de Colecciones Tecnicas de Recoleccion y Preparacion de Ejemplares Botanicos. National Council of the Flora of Mexico: Mexico.

<https://drive.google.com/file/d/0BwQw3z-V2CP3U3h4eUtkZ2wtQVk/view>

Algae: Sims RS (2016) Algae Research: Collection and Preservation.

<http://botany.si.edu/projects/algae/collpres.htm>

Aquatics: Ceska A, Ceska O (1986) More on techniques for collecting aquatic and marsh plants. Annals of the Missouri Botanical Garden 73(4): 825-827.

<http://www.biodiversitylibrary.org/item/87377#page/839/mode/1up>

Aquatics: Fosberg FR, Sachet M-H (1965) Instructions for collecting macroscopic aquatic plants. Pages 107–109, in Fosberg FR, Sachet H-M, Manual for Tropical Herbaria. Regnum Vegetabile 39, International Bureau for Plant Taxonomy and Nomenclature, Utrecht. [Republished in JS Womersley (1981) Plant collecting and herbarium development: a manual. Pp 98–99. Food and Agriculture Organization of the United Nations: Rome]

Aquatics: Haynes RR (1984) Techniques for collecting aquatic and marsh plants. Annals of the Missouri Botanical Garden 71: 229–231.

<http://www.biodiversitylibrary.org/item/54734#page/242/mode/1up>

Aquatics: Lot A (1986) Aquáticas vasculares. In: Lot A, Chiang F (eds) Manual de Herbaria: Administracion y Manejo de Colecciones Tecnicas de Recoleccion y Preparacion de Ejemplares Botanicos. Pp 87–92. Mexico: National Council of the Flora of Mexico.

<https://drive.google.com/file/d/0BwQw3z-V2CP3U3h4eUtkZ2wtQVk/view>

Aquatics: Saunders GW, Daniel CM (2012) Chapter 10, Methods for DNA Barcoding Photosynthetic Protists Emphasizing the Macroalgae and Diatoms. Pages 207–222 in, Kress WJ, Erickson DL (eds.), DNA Barcodes: Methods and Protocols, Methods in Molecular Biology, vol. 858, DOI 10.1007/978-1-61779-591-6\_10.

Araceae: Nicolson DH (1965) Collecting Araceae. In: Fosberg, F.R. and M.-H. Sachet (eds) Manual for Tropical Herbaria. Regnum Vegetabile 39. pp. 123–126. International Bureau for Plant Taxonomy and Nomenclature, Utrecht.

Araceae: Nicolson DH (1981) Notes on the collection of Araceae. Pages 115–120 in JS Womersley, Plant collecting and herbarium development: a manual. Food and Agriculture Organization of the United Nations: Rome [updated from Nicolson 1965]

Araceae: Croat, TB (1985) Collecting and preparing specimens of Araceae. *Annals of the Missouri Botanical Garden* 72(2): 252–258.

<http://www.biodiversitylibrary.org/item/89033#page/262/mode/1up>

Balsaminaceae, Impatiens: Grey-Wilson C (1980) Notes on collecting Impatiens. *Flora Malesiana Bulletin* 33: 3435–3436.

Begoniaceae, Begonia: Logan J (1986) A pre-pressing treatment for Begonia species and succulents. *Taxon* 35: 671.

Bromeliaceae: Jorgensen V (1972) The preparing, pressing and mounting of bromeliads. *Journal of the Bromeliad Society* 23: 211–214.

Bryophytes: Delgadillo C (1986) Briófitas. Pages 77–82 In: A Lot, Chiang F (eds) *Manual de Herbaria: Administracion y Manejo de Colecciones Tecnicas de Recoleccion y Preparacion de Ejemplares Botanicos*. National Council of the Flora of Mexico: Mexico.

<https://drive.google.com/file/d/0BwQw3z-V2CP3U3h4eUtkZ2wtQVk/view>

Cyclanthaceae: Hammel BE (1987) The origami of Botany: A guide to collecting and mounting specimens of Cyclanthaceae. *Annals of the Missouri Botanical Garden* 74(4): 897–902.

<http://www.biodiversitylibrary.org/item/87376#page/913/mode/1up>

Epiphytes: Aguirre-León E (1986) Epiphytes [including Orchidaceae]. Pages 113–119 Lot A & F Chiang (1986) *Manual de Herbario: Administracion y manejo de colecciones, tecnicas de recoleccion y preparacion de ejemplares botanicos*. Mexico: National Council of the Flora of Mexico. [Orchidaceae, Bromeliaceae]

<https://drive.google.com/file/d/0BwQw3z-V2CP3U3h4eUtkZ2wtQVk/view>

Ferns: Arreguín-Sánchez M de la L (1986) Pteridófitas. Pages 83–86, in A Lot & F Chiang (eds) *Manual de Herbaria: Administracion y Manejo de Colecciones Tecnicas de Recoleccion y Preparacion de Ejemplares Botanicos*. National Council of the Flora of Mexico: Mexico.

<https://drive.google.com/file/d/0BwQw3z-V2CP3U3h4eUtkZ2wtQVk/view>

Ferns: Brownsey PJ (1985) A plea for better collecting and curation of large ferns. *Newsletter of the Australian Systematic Botany Society* 43: 17–19.

Ferns: Croft J (1999) A guide to collecting herbarium specimens of ferns and their allies.

[accessed 3 June 2016] <http://www.anbg.gov.au/fern/collecting.html>

Ferns: Holttum RE (1957) Instructions for collecting tree ferns. *Flora Malesia Bulletin* 13: 567.

Ferns: Janssen T (2006) Moulding method to preserve tree fern trunk surfaces including remarks on the composition of tree fern herbarium specimens. *Fern Gazette* 17(6,7,8): 283–295

Ferns: Stolze RG 1973. Inadequacies in herbarium specimens of large ferns. *American Fern Journal* 63: 25–27.

Fungi: Cifuentes-Blanco J, Villegas Ríos M, Lárez-Ramírez L (1986) Hongos. Pages 55–64, in A Lot, Chiang F (eds) *Manual de Herbaria: Administración y Manejo de Colecciones Técnicas de Recolección y Preparación de Ejemplares Botánicos*. National Council of the Flora of Mexico: Mexico. <https://drive.google.com/file/d/0BwQw3z-V2CP3U3h4eUtkZ2wtQVk/view>

Lecythidaceae: Mori SA, Prance GT (1987) A guide to collecting Lecythidaceae. *Annals of the Missouri Botanical Garden* 74(2): 321–330.

Lentibulariaceae Utricularia: Taylor P, Steenis C van (1977) On the collection and preparation of Utricularia specimens. *Flora Malesiana Bulletin* 30: 2831–2832

Lianas: Gerwing, JJ, Schnitzer SA, Burnham RJ, Bongers F, Chave J, DeWalt SJ, Ewango CEN, Foster R, Kenfack D, Martínez-Ramos M, Parren M, Parthasarathy N, Pérez-Salicrup DR, Putz FE, Thomas DW (2006) A standard protocol for liana censuses. *Biotropica* 38(2): 256–261.

Lichens: Coutiño B (1986) Líquenes. Pages 65–75, in A Lot & F Chiang (eds) *Manual de Herbaria: Administración y Manejo de Colecciones Técnicas de Recolección y Preparación de Ejemplares Botánicos*. National Council of the Flora of Mexico: Mexico. <https://drive.google.com/file/d/0BwQw3z-V2CP3U3h4eUtkZ2wtQVk/view>

Molecular samples: Neubig KM, Whitten WM, Abbott JR, Elliott S, Soltis DE, Soltis PS (2014) Variables affecting DNA preservation in archival DNA specimens. Pages 81–136, in Applequist WL & LM Campbell, *DNA Banking for the 21<sup>st</sup> Century: Proceedings of the U.S. Workshop on DNA banking*. Missouri Botanical Garden: St Louis.

Molecular samples: Spooner DM, Ruess H (2014) Curating DNA specimens. Pages 71–80 in Applequist WL & LM Campbell, *DNA Banking for the 21<sup>st</sup> Century: Proceedings of the U.S. Workshop on DNA banking*. Missouri Botanical Garden: St Louis.

Musaceae, bananas: Womersley JS (1981) Instructions for collecting botanical specimens of banana (*Musa*) plants. Pages 100–102, in Womersley JS, *Plant collecting and herbarium*

development: a manual. Food and Agriculture Organization of the United Nations: Rome. Pp 137

Palms: Balick, MJ (1989) Collection and preservation of palm specimens. Pages 482–483 in: Campbell DG, Hammond HD (eds), Floristic Inventory of Tropical Countries. New York Botanical Garden, New York.

Palms: Dransfield J (1979) A manual of the rattans of the Malay Peninsula. Malayan Forest Records 29: 1–270.

Palms: Dransfield, J (1986) A guide to collecting palms. Annals of the Missouri Botanical Garden 73(1) 166–176. [http://www.jstor.org/stable/2399148?seq=1#page\\_scan\\_tab\\_contents](http://www.jstor.org/stable/2399148?seq=1#page_scan_tab_contents)

Palms: Quero HJ (1986) Palmas. Pages 121–131, in A Lot, Chiang F (eds) Manual de Herbaria: Administracion y Manejo de Colecciones Tecnicas de Recoleccion y Preparacion de Ejemplares Botanicos. National Council of the Flora of Mexico: Mexico.

<https://drive.google.com/file/d/0BwQw3z-V2CP3U3h4eUtkZ2wtQVk/view>

Palms: Tomlinson PB (1965) Special techniques for collecting palms for taxonomic study. In: FR Fosberg & M-H Sachet (eds) Manual for Tropical Herbaria. Regnum Vegetabile 39. pp.112–116. International Bureau for Plant Taxonomy and Nomenclature, Utrecht [updated by Fosberg in Womersley JS 1981, pages 103–109].

Pandanaceae: Stone BC (1981) Instructions for collecting botanical specimens of Pandanus (pandans). Pages 94–97, in Womersley JS, Plant collecting and herbarium development: a manual. Food and Agriculture Organization of the United Nations: Rome.

Pandanaceae: Stone BC (1983) A guide to collecting Pandanaceae (Pandanus, Greycinetia, and Sararanga). Annals of the Missouri Botanical Garden 70(1): 137–145.

<http://www.biodiversitylibrary.org/item/54746#page/145/mode/1up>

Passifloraceae, Passiflora: Jorgensen P, Lawesson JE, Holm-Nielsen LB (1984) A guide to collecting passionflowers. Annals of the Missouri Botanical Garden 71(4): 1172–1174.

<http://www.biodiversitylibrary.org/item/54734#page/1195/mode/1up>

Poaceae, Bamboo: Soderstrom T, Young SM (1983) A guide to collecting bamboos. Annals of the Missouri Botanical Garden 70(1): 128–136.

<http://www.biodiversitylibrary.org/item/54746#page/136/mode/1up>

Poaceae, Bamboo: McClure FA (1965) Suggestions on how to collect bamboos. Pages 121–122 in: Fosberg FR & M-H Sachet (eds) Manual for Tropical Herbaria. Regnum Vegetabile 39. International Bureau for Plant Taxonomy and Nomenclature, Utrecht.

Poaceae, Bamboo: McClure FA (1981) Notes on the collection of bamboos for identification and taxonomic study. Pages 110–114 in, Womersley JS, Plant collecting and herbarium development: a manual. Food and Agriculture Organization of the United Nations: Rome [updated from McClure 1965]

Poaceae: Koch SD (1986) Gramíneas y graminoides. Pages 93–101 in Lot A, Chiang F, Manual de Herbario: Administracion y manejo de colecciones, tecnicas de recoleccion y preparacion de ejemplares botanicos. Mexico: National Council of the Flora of Mexico. National Council of the Flora of Mexico: Mexico.

Pollen: Le Thomas, A (1989) Collection and preparation of pollen samples. In: Campbell DG, Hammond HD (eds) Floristic Inventory of Tropical Countries. pp. 474–475. New York Botanical Garden, New York

Succulents: Baker M, Mohlenbrock MW, Pinkava DJ (1985) A Comparison of Two New Methods of Preparing Cacti and Other Stem Succulents for Standard Herbarium Mounting. Taxon 34(1): 118–120.

Succulents: Snchez-Mejorada H (1986) Suculentas. Pp. 103–111, in Lot A, Chiang F, Manual de Herbario: Administracion y manejo de colecciones, tecnicas de recoleccion y preparacion de ejemplares botanicos. Mexico: National Council of the Flora of Mexico. [includes Agavaceae, Cactaceae, Crassulaceae]

<https://drive.google.com/file/d/0BwQw3z-V2CP3U3h4eUtkZ2wtQVk/view>

Trees: Wendt T (1986) Arboles. Pages 133–142m, in: Lot, A & F Chiang (eds) Manual de Herbaria: Administracion y Manejo de Colecciones Tecnicas de Recoleccion y Preparacion de Ejemplares Botanicos. Pp 133–142. Mexico: National Council of the Flora of Mexico.

<https://drive.google.com/file/d/0BwQw3z-V2CP3U3h4eUtkZ2wtQVk/view>

Wood: Womersley JS (1981) Collection of wood samples. Pages 121–122 in Plant collecting and herbarium development: a manual. Food and Agriculture Organization of the United Nations: Rome.

Zingiberaceae: Burt BL, Smith RM (1976) Notes on the collection of Zingiberaceae. Flora Malesiana Bulletin 29(1): 2599–2600. <http://repository.naturalis.nl/record/533127>

## **List 2: General Publications on Collecting Techniques**

Applequist WL, Campbell LM (2014) DNA Banking for the 21<sup>st</sup> Century: Proceedings of the U.S. Workshop on DNA banking. Missouri Botanical Garden: St Louis. 187 Pages

Davis AP (2011) Chapter 27 Collecting herbarium vouchers. In *Collecting Plant Diversity; Technical Guidelines*, L. Guarino, V. Ramanatha Rao & E. Goldberg (eds.) published by Bioversity International. [general discussion of collecting vouchers]

[http://cropgenebank.sgrp.cgiar.org/index.php?option=com\\_content&view=article&id=663](http://cropgenebank.sgrp.cgiar.org/index.php?option=com_content&view=article&id=663)

Davis PH (1961) Hints for hard-pressed collectors. *Watsonia* 4(6): 283–289

<http://www.biodiversitylibrary.org/bibliography/83809#/summary>

Fosberg FR, Sachet M-H (1965) *Manual for Tropical Herbaria*. *Regnum Vegetabile* 39, pages 1–132. International Bureau for Plant Taxonomy and Nomenclature, Utrecht. Pp 1–132. [macroscopic aquatic plants; bananas; fungi; palms; bamboo; Araceae; succulents; wood samples]

Hyland RPM (1972) A technique for collecting botanical specimens in rainforests. *Flora Malesiana Bulletin* 26: 2038–2040.

Jain SK, Mudgal V (1999) *A Hand Book of Ethnobotany*. Publisher: Bishen Singh Mahendra Pal Singh. 322 pages

Lot A, Chiang F (1986) *Manual de Herbario: Administracion y manejo de colecciones, tecnicas de recoleccion y preparacion de ejemplares botanicos*. Mexico: National Council of the Flora of Mexico. 142 pages [algae, fungi, lichens, mosses, ferns, aquatic vascular plants, grasses, succulents, epiphytes, palms, trees]

<https://drive.google.com/file/d/0BwQw3z-V2CP3U3h4eUtkZ2wtQVk/view>

Miller AG, Nyberg JA (1995) Chapter 27 Collecting herbarium vouchers. Pages 561–573, in *Collecting Plant Diversity; Technical Guidelines*, Guarino L, Ramanatha Rao V, Reid R (eds.). CAB International [for updated version see Davis 2011]

<http://cropgenebank.sgrp.cgiar.org/images/file/procedures/collecting1995/Chapter27.pdf>

Mitchell AW (1982) *Reaching the Rainforest Roof- A Handbook on Techniques of Access and Study in the Canopy*. Leeds Philosophical and Literary Society and UNEP, Leeds

Robertson KR (1980) *Observing, Photographing and Collecting Plants*. Illinois Natural History Survey Circular 55, pages 1-72 + Cover page and Table of Contents.

<http://hdl.handle.net/2142/73357>

Smith CE (1971) *Preparing Herbarium Specimens of Vascular Plants*. USDA Agricultural Information Bulletin No. 348.

Stenis CGGJ van (1977) Three pleas to collectors - improve your field data. *Flora Malesiana Bulletin* 30: 2843-2844.

Womersley JS (1981) Plant collecting and herbarium development: a manual. Food and Agriculture Organization of the United Nations: Rome. Pp 137 [pandans; aquatics; banana; palms; bamboos, Araceae; wood]