

SEMESTER AT SEA COURSE SYLLABUS

Discipline: Interdisciplinary (Biology/Anthropology)

Semester and Year: Fall 2008

SEMS 480-7: Plants and People – Explorations in Ethnobotany

Upper Division

Faculty Name: Dr. Laura Meitzner Yoder

Suggested Pre-requisites: Lower level/introductory course in biology; introductory course in anthropology recommended but not required.

COURSE DESCRIPTION

How do people in different places conceptualize and use plants for various purposes? This course explores the special linkages between people and plants in the diverse contexts on our world voyage through the interdisciplinary lens of ethnobotany. We will study different and unique forms of botanical knowledge and classification systems, alongside specific uses of plants for food, fuel, fiber, medicine, construction, tools, and ceremonies. Alongside learning about an array of approaches to accessing and processing ethnobotanical knowledge, students will gain practice in field research in contexts ranging from urban markets and pharmacies to smallholder agricultural systems and ordinary family kitchens. Students will be required to take detailed ethnographic and botanical notes on a series of field visits. The major paper will be on a class of ethnobotanical use (e.g., dye plants, food wraps, medicinal herbs), an ethnobotanical treatment of a region of interest, or tracing uses and cultural values of a given species or plant type throughout the voyage. As keen interest in local practices provides the immediate entre into a new culture needed to fulfill course requirements, curiosity and an adventuresome approach to trying new foods are highly recommended for course participants.

COURSE OBJECTIVES

In taking this course, students from both natural and social science backgrounds will be able to:

- 1) understand the basic procedures and purposes of botanical collection and preservation;
- 2) compare a variety of (scientific and folk) systems for classifying and naming plants;
- 3) learn how to systematically observe, record, and analyze plant uses in multiple settings;
- 4) gain skills in social research through fieldwork;
- 5) discuss the ethical considerations of gaining and applying new botanical knowledge; and
- 6) through extensive use of region-specific studies on ethnobotany, appreciate the richness and diversity of uses of plants around the world, as well as a wide range of disciplinary methods for learning about them.

TOPICAL OUTLINE OF COURSE

Day	Section and Class topic	Required readings due (additional readings listed below)	Assignment due	Next port
1	Introduction to ethnobotany	Martin Ch 1 (2-25); Balick & Cox Ch 1 (1-23)	Background form (distributed in class)	
2	Botanical collection, preservation, and systematics	Martin Ch 2 (27-65)	Description of personal experience making something using plants	
3	Studying plants in material culture; Amazonian ethnobotany and conservation	Balick & Cox Ch 4 (98-143); Martin 107-109; Prance 1972		→Salvador
4	Acquisition and transmission of botanical knowledge: Migration, plant diffusion, and science	Voeks 1995; Philip 1995; Shanley & Rosa 2004; Foster & Cordell 1992 (163-168)	Field visit 1	
5	Maize improvement and diffusion case study	Galinat 1995; McCann 2005 (excerpts); Yen 1960	Project topic proposal due	
6	Ethnopharmacology	Balick & Cox Ch 5 (144-177); Martin Ch 3 (67-93, skim); and one of the recommended articles		→Walvis Bay
7	Studying local uses of regional foods	Youngblood 2004; Cheney & Scholtz 1964; and one of the recommended articles	Field visit 2	→Cape Town
8	Review of observations in field visits on African uses of plants		Field visit 3	
9	Anthropological tools in ethnobotany: Fieldwork and research methods	Martin Ch 4 (95-135); Lal & Lata 1980; Mehra et al. 1975		
10	Economic analysis	Martin Ch 6 (171-200); Williams et al. 2000; Olsen 1998		
11	Linguistics and folk categorization	Martin Ch 7 (201-221); Berlin 1992 (3-25); Brown 2000 (65-68); Morris 2000 (69-87)		

12	Plant domestication, diffusion, and agriculture: Spices	Ilyas 1976; or Ilyas 1978; or Ilyas 1980; Andrews 1992 (81-92)		→Chennai
13	Fruits and forest products	Saw et al. 1991; Aveacute 1988	Field visit 4	
14	Genetic change	Zohary 2004; Pollan 2001 (181-238)		→Penang
15	Plants and cultural identity of migrants	Balick & Cox Ch 3 (62-97); Nguyen 2003; Nguyen 2005; Kuebel & Tucker 1988	Field visit 5	→Ho Chi Minh
16	Wild-harvested and native foods	Xu et al. 2004; Bangmei & Abbott 1987; Abbott 1978	Description of a food memory about trying a new food	→Hong Kong, Shanghai
17	Minor crops	Hodge 1975		→Kobe, Yokohama
18	Review of observations in field visits on Asian uses of plants in everyday settings	Palmer 2004	Field visit 6	
19	Cultural identity and staple foods: Root crops case study	Pollock 1992 (excerpts); Greenwell 1948; Chock 1969	Description of a food memory that reminds one of home	
20	Applying Ethnobotany: Conservation and Development	Martin Ch 8 (223-252); Balick & Cox Ch 6 (178-208); Dalle & Potvin 2004		
21	Project presentations	Martin & Schuster 2003	Projects due	→Honolulu
22	Project presentations			
23	Project presentations			→Puntarenas

Required texts used throughout the course:

Balick, M. J., and P. A. Cox. 1996. *Plants, People, and Culture*. New York: Scientific American Library.

Martin, Gary J. 1995. *Ethnobotany (A 'People and Plants' Conservation Manual)*. London: Chapman & Hall.

Recommended texts used throughout the course [faculty copies available and/or on reserve in library]:

Schultes, Richard Evans, and Siri von Reis. 1995. *Ethnobotany: Evolution of a Discipline*. Dioscorides Press/Timber Press.

Foster, N. and L. S. Cordell. 1992. *Chilies to chocolate: Food the Americas gave the world*. Tucson, University of Arizona Press.

Pollan, Michael. 2001. *The Botany of Desire: A Plant's-Eye View of the World*. New York: Random House.

Capon, Brian. 1990. *Botany for Gardeners: An Introduction and Guide*. Portland: Timber Press.

Baumgardt, John Philip. 1982. *How to Identify Flowering Plant Families: A Practical Guide for Horticulturists and Plant Lovers*. Portland: Timber Press.

Morton, Julia F. 1987. *Fruits of Warm Climates*. Winterville, N.C.: Creative Resource Systems.

Mabberley, D. J. 1993. *The Plant-Book: A portable dictionary of the higher plants*. Cambridge: Cambridge University Press.

Short, Philip. 2003. *In Pursuit of Plants: Experiences of nineteenth & early twentieth century plant collectors*. Portland: Timber Press.

Wallace, A. R. 2000 [1869]. *The Malay Archipelago*. Singapore: Periplus.

Barwick, Margaret. 2004. *Tropical & Subtropical Trees: A Worldwide Encyclopaedic Guide*. London: Thames & Hudson.

Daily reading schedule; readings recommended but not required are in *italics*. These recommended readings are useful for students to use in their projects. Chapters and articles are available in the course electronic intranet folder, as follows:

1. Introduction to ethnobotany

- Martin: Ch 1: Data collection and hypothesis testing
- Balick & Cox: Ch 1: People and Plants
- *In Schultes & von Reis (23-39): The Scope and Aims of Ethnobotany in a Developing World, by Janis B. Alcorn*

2. Botanical collection, preservation, and systematics

- Martin: Ch 2: Botany
- *Onokpise, Oghenekome U. 2004. Natural Rubber, Hevea brasiliensis (Willd. Ex A. Juss.) Müll. Arg., Germplasm Collection in the Amazon Basin, Brazil: A Retrospective. Economic Botany 58(4):544-555.*

3. Studying plants in material culture; Amazonian ethnobotany and conservation

- Balick & Cox: Ch 4: Plants as the Basis for Material Culture
- Martin (107-109): on keeping an ethnobotanical journal
- Prance, Ghilleen T. 1972. Ethnobotanical Notes from Amazonian Brazil. *Economic Botany* 26: 221-237.
- Kainer, Karen A., and Mary L. Duryea. 1992. Tapping Women's Knowledge: Plant Resource Use in Extractive Reserves, Acre, Brazil. *Economic Botany* 46: 408-425.
- Milliken, William, and Bruce Albert. 1996. The Use of Medicinal Plants by the Yanomami Indians of Brazil. *Economic Botany* 50: 10-25.
- Milliken, William, and Bruce Albert. 1997. The Use of Medicinal Plants by the Yanomami Indians of Brazil, Part II. William Milliken and Bruce Albert. *Economic Botany* 51:264-278.
- In Schultes & von Reis (147-156): *The Importance of Ethnobotany for Tropical Forest Conservation*, by Mark J. Plotkin
- In Schultes & von Reis (157-174): *Quantitative Ethnobotany and the Case for Conservation in Amazonia*, by G.T. Prance, W. Balée, B.M. Boom, and R.L. Carneiro

4. Acquisition and transmission of botanical knowledge: Migration, plant diffusion, and science

- Voeks, R. A. 1995. Candomblé ethnobotany: African medicinal plant classification in Brazil. *Journal of Ethnobiology* 15:257-280.
- Philip, K. 1995. Imperial Science Rescues a Tree: Global Botanic Networks, Local Knowledge and the Transcontinental Transplantation of Cinchona. *Environment and History* 1:173-200.
- Shanley, P. and N.A. Rosa. 2004. Eroding Knowledge: An Ethnobotanical Inventory in Eastern Amazonia's Logging Frontier. *Economic Botany* 58(2):135-160.
- Foster, N. and L. S. Cordell. 1992. "Appendix: Food Plants of American Origin." In *Chilies to chocolate: Food the Americas gave the world*, pp. 163-168. Tucson, University of Arizona Press.
- Voeks, R.A. and A. Leony. 2004. Forgetting the Forest: Assessing Medicinal Plant Erosion in Eastern Brazil. *Economic Botany* 58 (Supplement):S294-S306.
- Campos [in press]. *On plant knowledge acquisition among Amazonian migrants*.

5. Maize improvement and diffusion case study

- Galinat, Walton C. 1995. El Origen del Maiz: El Grano de la Humanidad; The Origin of Maize: Grain of Humanity. *Economic Botany* 49:3-12.
- McCann, James C. 2005. *Maize and Grace: Africa's Encounter with a New World Crop, 1500-2000*. Cambridge: Harvard University Press. (Excerpts.)
- Yen, D.E. 1960. The Use of Maize by the New Zealand Maoris. *Economic Botany* 13:319-327.
- (The following recommended articles from the interdisciplinary journal *Economic Botany* will serve as examples of different types of ethnobotanical approaches which students may use in individual projects.)
- Eubanks, Mary W. 2001. *The Mysterious Origin of Maize*. *Economic Botany* 55:492-514. (skim)
- Johannessen, Carl L., and Anne Z. Parker. 1989. Maize Ears Sculptured in 12th and 13th Century A.D. India as Indicators of Pre-Columbian Diffusion. *Economic Botany* 43: 164-180.

- Payak, M.M., and J. K. S. Sachan. 1993. *Maize Ears Not Sculpted in 13th Century Somnathpur Temple in India*. *Economic Botany* 47: 202-205.
- Louette, D., A. Charrier, et al. 1997. *In situ conservation of maize in Mexico: Genetic diversity and maize seed management in a traditional community*. *Economic Botany* 51(1): 20-38.
- Goodman, Major M., and Robert McK. Bird. 1977. *The Races of Maize: IV. Tentative Grouping of 219 Latin American Races*. *Economic Botany* 31: 204-221.
- Johannessen, Carl L. 1982. *Domestication Process of Maize Continues in Guatemala*. *Economic Botany* 36:84-99.
- Bellon, Mauricio R., and Stephen B. Brush. 1994. *Keepers of Maize in Chiapas, Mexico*. *Economic Botany* 48:196-209.
- Galinat, Walton C. 2001. *A Reconstruction of a Possible Role of Crucial Observations Leading to a Rapid Domestic Transformation of Wild Teosinte into the First Maize*. *Economic Botany* 55:570-574.
- Soleri, Daniela, and David A. Cleveland. 2001. *Farmers' Genetic Perceptions Regarding Their Crop Populations: An Example with Maize in the Central Valleys of Oaxaca, Mexico*. *Economic Botany* 55: 93-105.
- Galinat, Walton C. 1992. "Maize: Gift from America's First Peoples," in *Chilies to chocolate: Food the Americas gave the world*. Edited by N. Foster and L. S. Cordell, pp. 47-60. Tucson, University of Arizona Press.

6. Ethnopharmacology

- Balick & Cox: Ch 5: Entering the Other World
- Martin: Ch 3 (67-93, skim): Ethnopharmacology and related fields
- And select one or more of the following articles:
- Milliken, William. 1997. *Traditional Anti-malarial Medicine in Roraima, Brazil*. *Economic Botany* 51: 212-237.
- Stepp, J. R., and D. E. Moerman. 2001. *The importance of weeds in ethnopharmacology*. *Journal of Ethnopharmacology* 75:19-23.
- Browner, C. H., B. R. Ortiz de Montellano, and A. J. Rubel. 1988. *A methodology for cross-cultural ethnomedical research*. *Current Anthropology* 29:681-702.
- In Schultes & von Reis (289-302): *Arrow Poisons and Their Role in the Development of Medicinal Agents*, by Normal G. Bisset
- In Schultes & von Reis (343-348): *Amazonian Psychoactive Indoles: A Review*, by Jan-Erik Lindgren
- In Schultes & von Reis (369-384): *Considerations in the Multidisciplinary Approach to the Study of Ritual Hallucinogenic Plants*, by Peter A. G. M. de Smet

7. Studying local uses of regional foods

- Youngblood, D. 2004. *Identification and Quantification of Edible Plant Foods in the Upper (Nama) Karoo, South Africa*. *Economic Botany* 58 (Supplement): S43-S65.
- Cheney, Ralph Holt, and Elizabeth Scholtz. 1964. *Rooibus Tea, a South African Contribution to World Beverages*. *Economic Botany* 17:186-194.
- In Schultes & von Reis (216-225): *Ethnobotany in Africa*, by John O. Kokwaro
- Konstant, T.L., S. Sullivan, and A. B. Cunningham. 1995. *The Effects of Utilization by People and Livestock on *Hyphaene petersiana* (Arecaceae) Basketry Resources in the Palm Savanna of North-Central Namibia*. *Economic Botany* 49:345-356.

- Sullivan, S., T. L. Konstant, and A. B. Cunningham. 1995. *The Impact of Utilization of Palm Products on the Population Structure of the Vegetable Ivory Palm (Hyphaene petersiana, Areaceae) in North-Central Namibia. Economic Botany 49:357-370.*
- McKean, Steven G. 2003. *Toward Sustainable Use of Palm Leaves by a Rural Community in Kwazulu-Natal, South Africa. Economic Botany 57: 65–72.*
- Shackleton, S. E., C. M. Dzerefos, C. M. Shackleton, and F. R. Mathabela. 1998. *Use and Trading of Wild Edible Herbs in the Lowveld Savanna Region, South Africa. Economic Botany 52:251-259.*
- Shackleton, S. E., C. M. Shackleton, T. R. Netshiluvhi, B. S. Geach, A. Ballance, and D. H. K. Fairbanks. 2002. *Use Patterns and Value of Savanna Resources in Three Rural Villages in South Africa. Economic Botany 56:130-146.*
- Weaver, Robert J. 1976. *Some Observations on Grape Growing in the Republic of South Africa. Economic Botany 30:81-93.*

8. Review of observations in field visits on African uses of plants. (No new readings.)

9. **Anthropological tools in ethnobotany:** Fieldwork and research methods

- Martin: Ch 4: Anthropology
- Lal, Shiv Darshan, and Kamlesh Lata. 1980. *Plants Used by the Bhat Community for Regulating Fertility. Economic Botany 34:273-275.*
- Mehra, K. L., K. C. Kanodia and R. N. Srivastava. 1975. *Folk Uses of Plants for Adornment in India. Economic Botany 29:39-46.*
- Francis, Jr., Peter. 1984. *Plants as Human Adornment in India. Economic Botany 38:194-209.*
- Shah, N. C., and M. C. Joshi. 1972. *An Ethnobotanical Study of the Kumaon Region of India. Economic Botany 25:414-422.*
- Gadgil, Madhav, and V. D. Vartak. 1976. *The Sacred Groves of Western Ghats in India. Economic Botany 30:152-160.*
- Arora, R.K. 1977. *Job's-Tears (Coix lacryma-jobi) - A Minor Food and Fodder Crop of Northeastern India. Economic Botany 31:358-366.*
- Bedi, S.J. 1978. *Ethnobotany of the Ratan Mahal Hills, Gujarat, India. Economic Botany 32:278-284.*
- Jain, S. K., and Namita Dam. 1979. *Some Ethnobotanical Notes from Northeastern India. Economic Botany 33:52-56.*
- Jain, S. K., and S. K. Borthakur. 1980. *Ethnobotany of the Mikirs of India. Economic Botany 34:264-272.*

10. Economic analysis

- Martin: Ch 6: Economics
- Williams, Vivienne L., Kevin Balkwill, and Edward T.F. Witkowski. 2000. *Unraveling the Commercial Market for Medicinal Plants and Plant Parts on the Witwatersrand, South Africa. Economic Botany 54:310-327.*
- Olsen, Carsten Smith. 1998. *The Trade in Medicinal and Aromatic Plants from Central Nepal to Northern India. Economic Botany 52:279-292.*
- Hegde, R., S. Suryaprakash, L. Achtoth, and K. S. Bawa. 1996. *Extraction of Non-Timber Forest Products in the Forests of Biligiri Rangan Hills, India. 1. Contribution to Rural Income. Economic Botany 50:243-251.*

- Kumar, Vivek, and Sudhanshu K. Jain. 2002. *Plant Products in Some Tribal Markets of Central India*. *Economic Botany* 56:242-245.
- Appasamy, Paul P. 1993. *Role of Non-Timber Forest Products in a Subsistence Economy: The Case of a Joint Forestry Project in India*. *Economic Botany* 47:258-267.
- Ganesan, Balachander. 1993. *Extraction of Non-Timber Forest Products, Including Fodder and Fuelwood, in Mudumalai, India*. *Economic Botany* 47:268-274.
- Narendran, Kodandapani, Indu K. Murthy, H.S. Suresh, H.S. Dattajara, N.H. Ravindranath, and R. Sukumar. 2001. *Nontimber Forest Product Extraction, Utilization and Valuation: A Case Study from the Nilgiri Biosphere Reserve, Southern India*. *Economic Botany* 55:528-538.

11. Linguistics and folk categorization

- Martin: Ch 7: Linguistics
- Berlin, B. 1992. *Ethnobiological Classification: Principles of Categorization of Plants and Animals in Traditional Societies*. Pp 3-25. Princeton, NJ: Princeton University Press.
- Morris, Brian. 2000. The Pragmatics of Folk Classification. In *Ethnobotany: A Reader*, ed. Paul E. Minnis, pp. 69-87. Norman: University of Oklahoma Press.
- Brown, Cecil H. 2000. Folk Classification: An Introduction. In *Ethnobotany: A Reader*, ed. Paul E. Minnis, pp. 65-68. Norman: University of Oklahoma Press.

12. Plant domestication, diffusion, and agriculture: Spices

- Ilyas, M. 1976. Spices in India. *Economic Botany* 30:273-280.
- Or: Ilyas, M. 1978. Spices of India. II. *Economic Botany* 32:238-263.
- Or: Ilyas, M. 1980. Spices in India. III. *Economic Botany* 34:236-259.
- Andrews, Jean. 1992. "The Peripatetic Chili Pepper: Diffusion of the Domesticated Capsicums since Columbus." In *Chilies to chocolate: Food the Americas gave the world*, by N. Foster and L. S. Cordell, pp. 81-94. Tucson: University of Arizona Press.
- In *Schultes & von Reis (235-249): Ethnobotanical Resources in Hot, Arid Zones of India*, by J.K. Maheshwari

13. Fruits and forest products

- Saw, L. G., J. V. LaFrankie, K. M. Kochummen, and S. K. Yap. 1991. Fruit Trees in a Malaysian Rain Forest. *Economic Botany* 45:120-136.
- Aveacute, Wanda. 1988. Small-Scale Utilization of Rattan by a Semai Community in West Malaysia. *Economic Botany* 42:105-119.
- Gianno, Rosemary. 1986. *Resin Classification among the Semelai of Tasek Bera, Pahang, Malaysia*. *Economic Botany* 40:186-200.
- Dove, Michael R. 1997. *The "Banana Tree at the Gate": Perceptions of Production of Piper nigrum (Piperaceae) in a Seventeenth Century Malay State*. *Economic Botany* 51:347-361.

14. Genetic change

- Zohary, D. 2004. Unconscious Selection and the Evolution of Domesticated Plants. *Economic Botany* 58(1):5-10.
- Pollan, Michael. 2001. "Desire: Control / Plant: The Potato." In *The Botany of Desire: A Plant's-Eye View of the World*, pp. 181-238. New York: Random House.

- Singh, Virendra, Bikram Singh, and Vijay K. Kaul. 2003. Domestication of Wild Marigold (*Tagetes minuta* L.) as a Potential Economic Crop in Western Himalaya and North Indian Plains. *Economic Botany* 57:535–544. In Schultes & von Reis (258-263): A Case for Ethnobotany in Malaysia, by Ong Hean Chooi
- In Schultes & von Reis (195-210): Ethnobotany and Plant Germ Plasm, by Michael J. Balick; The Ethnobotany of Domesticated Plants, by Charles B. Heiser; The Ethnobotany of Artificial Selection in Seed Plant Domestication, by Garrison Wilkes

15. Plants and cultural identity of migrants

- Balick & Cox Ch 3 (62-97): From Hunting and Gathering to Haute Cuisine
- Nguyen, My Lien T. 2003. Comparison of Food Plant Knowledge Between Urban Vietnamese Living in Vietnam and in Hawai‘i. *Economic Botany* 57:472–480.
- Nguyen, My Lien T. 2005. Bc hà (*Colocasia gigantea* [Blume] Hook. f.) in the Culinary History of Vietnamese-Americans. *Economic Botany* 59:185–190.
- Kuebel, K. R., and Arthur O. Tucker. 1988. Vietnamese Culinary Herbs in the United States. *Economic Botany* 42:413-419.
- Ogle, Britta M., Ho Thi Tuyet, Hoang Nghia Duyet, and Nguyen Nhut Xuan Dung. 2003. Food, Feed or Medicine: The Multiple Functions of Edible Wild Plants in Vietnam. *Economic Botany* 57:103–117.
- Delang, Claudio O. 2005. The Market for Medicinal Plants in Sapa and Hanoi, Vietnam. *Economic Botany* 59:377–385.

16. Wild-harvested and native foods

- Xu You-Kai, Tao Guo-Da, Liu Hong-Mao, Yan Kang-La, and Dao Xiang-Sheng. 2004. Wild Vegetable Resources and Market Survey in Xishuangbanna, Southwest China. *Economic Botany* 58(4):647-667.
- Bangmei Xia and Isabella A. Abbott. 1987. Edible Seaweeds of China and Their Place in the Chinese Diet. *Economic Botany* 41:341-353.
- Abbott, Isabella A. 1978. The Uses of Seaweed as Food in Hawaii. *Economic Botany* 32:409-412.
- Tien-Hsi Cheng. 1970. Production of Kelp - A Major Aspect of China's Exploitation of the Sea. *Economic Botany* 23:215-236.
- Sundriyal, M., R.C. Sundriyal, and E. Sharma. 2004. Dietary Use of Wild Plant Resources in the Sikkim Himalaya, India. *Economic Botany* 58(4):626-638. [For related articles on plants in the region, see *Economic Botany* 52(2): 286ff. and 300ff.]
- Huang Ji, Pei Shengji, and Long Chunlin. 2004. An Ethnobotanical Study of Medicinal Plants Used by the Lisu People in Nujiang, Northwest Yunnan, China. *Economic Botany* 58:s253-264.
- Davidson, Alan. 1992. “Europeans’ Wary Encounter with Tomatoes, Potatoes, and other New World Foods.” In *Chilies to chocolate: Food the Americas gave the world*, by N. Foster and L. S. Cordell, pp. 1-14. Tucson, University of Arizona Press.

17. Minor crops

- Hodge, W. H. 1975. Wasabi - Native Condiment Plant of Japan. *Economic Botany* 28:118-129.
- Humm, Harold J. 1948. Agar - A Pre-War Japanese Monopoly. *Economic Botany* 1:317-329.

- Pearce, Debra K., and John W. Thieret. 1991. *Japanese-Quince (Chaenomeles speciosa, Rosaceae), a Dual-Use Shrub. Notes on Economic Plants. Economic Botany 45:285-288.*
- Yamaguchi, Hirofumi. 1992. *Wild and Weed Azuki Beans in Japan. Economic Botany 46:384-394.*
- Brussell, David Eric. 2004. *Araliaceae species used for culinary and medicinal purposes in Niigataken, Japan. Economic Botany 58:736-739.*

18. Review of observations in field visits on Asian uses of plants in everyday settings

- Palmer, C. T. 2004. The Inclusion of Recently Introduced Plants in the Hawaiian Ethnopharmacopoeia. *Economic Botany 58(Supplement): S280-S293.*

19. Cultural identity and staple foods: Root crops case study

- Pollock, N. J. 1992. *These Roots Remain: Food Habits in Islands of the Central and Eastern Pacific since Western Contact.* Laie, Hawai'i: The Institute for Polynesian Studies. (Excerpts.)
- Greenwell, Amy B. H. 1948. Taro - With Special Reference to Its Culture and Uses in Hawaii. *Economic Botany 1:276-289.* (skim)
- Chock, Alvin K. 1969. Hawaiian Ethnobotanical Studies I. Native Food and Beverage Plants. *Economic Botany 22:221-238.*
- Chu, Edison P., and C. L. Figueiredo-Ribeiro. *Native and Exotic Species of Dioscorea Used as Food in Brazil. Economic Botany 45:467-479.*

20. **Applying Ethnobotany:** Conservation and Development

- Martin: Ch 8: Ethnobotany, conservation, and community development
- Balick & Cox: Ch 6: Biological Conservation and Ethnobotany
- Dalle, Sarah Paule, and Catherine Potvin. 2004. Conservation of Useful Plants: An Evaluation of Local Priorities from Two Indigenous Communities in Eastern Panama. *Economic Botany 58(1):38-57.*

21. Project presentations

- Martin, J., and L. C. Schuster. 2003. Native Hawaiian Collection, Use, and Management of Plants and Plant Communities within Hawai'i Volcanoes National Park. *Ecological Restoration 21:307-310.*

22. Project presentations. (No new readings.)

23. Project presentations. (No new readings.)

FIELD COMPONENT

In-port assignments are an integral part of this course. Students will need to complete field visit reports that link port observations to classroom material, following guidelines provided, for each of these assignments. Independent Practica and student participation in other organized Field Program visits for the purposes of this course should be approved by the lecturer prior to port arrival.

All students must complete three field practica. Two of these must be field trips/visits led by me, from the list below, which addresses the material we cover in class. The third may be from the list of supplemental options listed separately below, or an independent option you design yourself (with my approval).

Students should select at least two FDPs from the following list:

SOUTH AFRICA: National Botanical Gardens at Kirstenbosch (FDP)
INDIA: Traditional Medicine in India
MALAYSIA: Flora and Fauna in Malaysia; Fruit, Vegetable, Herb, and Spice Market Visit

One additional field practicum should be selected from the following FDPs, or additional independent options:

- Nature preserve (e.g., FDP “Coastal Environments near Salvador,” “Bicycling in Pitaçu Park: Urban Ecology” (Salvador))
- Farm/Orchard (e.g., FDP “Rural Village & Farm Visit” in Chennai)
- Plant uses in local ceremony (e.g., Welcoming/Farewell Ceremonies in various ports)
- Foods in restaurant or local home kitchen, perhaps as part of a homestay or village visit
- Plant materials used by artisans/craftspeople
- Botanic gardens in Penang, Hong Kong, Honolulu, Salvador, or other locations
- Museum
- Other independent practica as approved

All students will also keep a notebook to record uses of plants that are new to each student in the course of the voyage. These sources of new knowledge can come from field visits, other people on the ship, etc. Students will pay particular attention to native plant uses and “traditional” foods or medicines that rely on botanical introductions.

METHODS OF EVALUATION

Field visit reports	6 (10 points each)	60 points
Project (written and presentation)		20 points
Class participation (attendance, posing and answering questions that give evidence of understanding readings, coordinating a class session, posting descriptions, and feedback to other students)		20 points

Total=100 points

REQUIRED TEXTBOOKS

Balick, M. J., and P. A. Cox. 1996. *Plants, People, and Culture*. New York: Scientific American Library.

Cost: approx \$49 (used)

ISBN-10: 0716760274; **ISBN-13:** 978-0716760276

Martin, Gary J. 1995. *Ethnobotany (A 'People and Plants' Conservation Manual)*. London: Chapman & Hall.

Cost: approx \$35 (used)

ISBN-10: 1844070840; **ISBN-13:** 978-1844070848