Slide 1

Introduction to Ethnobotany

Lecture 21

Slide 2

Learning Outcomes

- Ethnobotany
- Traditional Botanical Knowledge
- Gathering Ethnobotanical Information
- Value of Ethnobotanical Information

Slide 3

What is Ethnobotany?

- The study of human uses of plants
- Interdisciplinary science
- Requires knowledge of botany AND anthropology
- Term first used in 1896 Harshberger

Slide 4

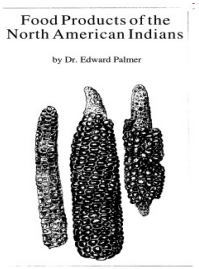
Gathering Ethnobotanical Information

- Must come from knowledgeable individuals
- Interviews
- Translations
- Observations

Slide 5

Food Products of North American Indians

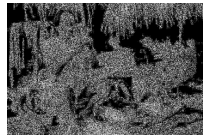
- Edward Palmer 1870
- Documented uses of plants by various Native American groups
- Foods, plus
- Fibers,



Slide 6

Traditional Botanical Knowledge

- Indigenous Classification Systems
- Based on Uses
- Chambira (*Astrocaryum chambira*)



Slide 7

Medicinal Plants and Drugs

- Plant secondary compounds
- E.g. alkaloids and glycosides
- Affect human body = drugs
- Basis for traditional AND modern medicine
- Rosy Periwinkle
- Vinblastine and Vincristine

Slide 8

Witches and Doctors

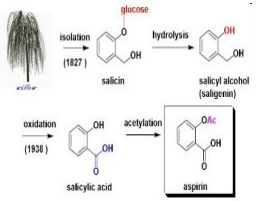
- Healers had knowledge of medicinal properties of plants
- Spiritualism was an integral part of healing
- In Europe Healers were persecuted by the Church as Witches
- Shaman and Witch Doctors still practice in South America and Africa

Nicholas Culpeper

- Collected writings on medicinal properties and uses of plants
- Translated into English (from Latin)
- 1652 English Physician
- 1653 Complete Herbal
- Originally the basis of medicine
- Now basis of 'alternate medicine'
- ALL CULTURES HAVE THEIR OWN 'COMPLETE HERBAL'
- Many passed from generation to generation orally

Salicylic Acid

- Compounds in Willow bark
- Reduce fever
- Reduce pain
- Already known to Arabs and Romans 2000 years ago



Slide 11

The Story of Aspirin

- Salicylic acid
- (Willow Genus Salix)
- Irritating to the stomach
- Felix Hoffmann developed acetylsalicylic acid
- Bayer Pharmaceuticals 1899
- Reduces fever, inflammation and pain

Slide 12

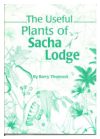
Convention on Biological Diversity

- Earth Summit in Rio de Janeiro on 5 June 1992
- 193 Nations signed
- Protects Intellectual Property Rights
- fair and equitable sharing of the benefits arising from the use of genetic resources

Slide 13

Ethnobotanical Knowledge of Lowland Quechua

- Descendents of Inca
- Moved into Amazon basin recently
- Classification system based upon
- Uses
- Recognized plant forms



Slide 14

Quichua Classification

- Mixture of Quechuan words and Spanish
- Morphological terms:
- Panga = leaf
- Caspi = tree
- *uña de gato*
- Uses
- Ayahuasca = soul vine

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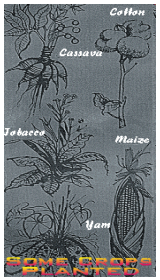
Pre-Linnaean Plant Classification

- Scientific Nomenclature invented by Linnaeus 1753
- Pre-Linnaean classification based upon usage
- Mugwort
- 'wort' = root/plant
- Mug = either "Marsh" or "Midge"
- Refer to location where plants grow OR use as insect repellent
  - Also " Sneezewort
  - Woundwort
  - "Eyebright"
- Solanum = solace or peace refererring to sleep inducing properties

Slide 16

Ethnobotany and the New World

- October 12 1492
- Columbus arrived in Cuba
- (He thought he had found Asia)
- He did not find Oriental Spices
- Tobacco, Cotton, and Corn
- Which were already cultivated by Taino Arawak