



Southern Arizona Beekeepers Association

DATE: 09.13.17

LOCATION: Eckstrom Library @ 22nd Street and Columbus

ATTENDEES: (27 people)

FACILITATOR: Will Fitz

Sign in and Introductions –

Business-

- 1) Registration for membership – Chris Andreotta
- 2) T-shirts available \$25 – see Lucas, pay Chris
- 3) Club has been donated a 2 frame hand crank extractor for use by members.

Discussion Topic - “Edible and Medicinal Pollinator Plants of Southwest”

Presenter - John J Slattery, author of **Southwest Foraging: 117 Wild and Flavorful Edibles**

John presented a power point with many different items. He began “what is pollen?” Pollen is found on the staminate (stamens) flowers of all angiosperm. Fertilization of the ova (eggs) of the flowers requires transfer of the pollen to the stigma by some type of pollinator. Pollinators include bees, beetles, flies, wasps, butterflies, birds, bats and wind. Various plants require different pollinators. Arizona has over 1300 species of bees, more than any other state. There are pollinators for nearly 4000 flowering plants in Arizona. Anthers – sacs on the anthers are full of pollen.

“Perfect flower” is a flowering plant that has both male and female parts on the same blossom or flower. Many flowers are male or female, not perfect flowers, so are dependent on pollinators to transfer the pollen to fertilize plants.

There is an abundant diversity of wild plants that can be eaten in the Sonoran Desert. Approximately 400 edible plants in the lower Sonoran Desert, and hundreds more in the mountainous zones.

Major wild food plants include:

- Amaranth – amaranthus spp.
- Cholla – cylindropuntia spp.
- Palo Verde - parkinsonia spp.
- Mesquite – prosopis spp.
- Saguaro – carnegiea gigantean
- Prickly Pear – opuntia spp.

Amaranth is very nutritious, but has extremely small shiny black or reddish brown seeds which are very spiny. This is very labor intensive to collect and process amaranth seeds. It is also high in Vitamin K, which is needed to utilize vitamin D

Cholla has several different types, most have excellent food and medicinal qualities. The most nutritious part is the new buds. Some of the various types of cholla are pencil, cane, and staghorn. However cholla cross pollinate very easily and are often hybrids, rather than true species.

Best sites to gather cholla buds are from nearby old Hohokam sites. Remove spines by brushing to avoid buds sticking to each other and to person. High in bioflavinoids. Should not be eaten raw, cook by placing into hot coals or boiling in water for 5 minutes. Then sun dry the buds for storage. Water from boiling contains oxalic acid. (Some discussion here about using cholla water for Varroa control)

John makes "atoll de siviri" which is cholla porridge made of cooked and dehydrated cholla buds ground up with mesquite flour and corn flour.

Other ways to consume cholla – eat the green cane cholla pulp from inside buds. This can bring down fever or overheating, and reduce skin redness.

Cholla blossoms are also edible, pick just after full bloom.

Palo Verde – *Parkinsonia* spp.

There are several species of palo verde, primarily yellow palo verde and blue palo verde. The blossoms are edible. Blue palo verde seeds are easier to gather, but have a bitter taste. Yellow palo verde seeds are sweeter. Eat the seeds (beans) not the pods. Blanch beans and put into jar of olive oil for use.

Mesquite – *Prosopis Velutina*

Several species of mesquite trees. Grind dry beans and pods and use flour. Problem of allergies or illness caused by aflatoxin from aspergillus which grows on beans that have been rained on or moistened after maturing. Pick pods after completely dry, but before it rains. Do not pick beans off ground unless you are very sure of the tree, that it has not received water, rained on or irrigated.

Saguaro – *Carnegiea Gigantea*

Wide range of pollinators use these blossoms. They dry on the cactus and then fall to the ground. Syrup is made from the saguaro fruit. It is shelf stable for long period if processed. Photo of rabbit cooked with saguaro fruit.

Prickly Pear – *Opuntia* spp

Observe stigma color to determine and identify hybrids. Most popular cactus fruit for human consumption. Many methods for prickly pear fruit processing. John freezes the fruit, allows to defrost and then mashes and sieves the resultant product to obtain juice. Other method it to blend fruit in large blender and then strain out juice. Many products can be made with prickly pear juice or syrup, jellies, margaritas, ciders, flavor coconut milk. Lots of internet information how to can or process the juice for longer term storage. He returns the seeds and pulp to desert for animals to utilize.

Other plants available for foraging include *Hyptis emoryi*, Desert Lavendar, *Salvia*. Can make these into teas, add honey for sweetness. Desert Hackberry is edible. Eat the berries.

Chia – *Salvia Columburiae*

Native annual, germinates with winter rains and blooms in spring. Nutricious, holds water, helps maintain internal water content. May prevent overheating. However store bought chia may do as well. Native chia is not abundant and not easy to collect. This is used in China as tensinogens, to

“bring someone back from died, i.e. stimulate heart after a cardiovascular event. Anecdotal – few drops of tincture of chia can stimulate heart.

Bee Bush – Aloysia Gratissima

Grows near Ruby and Arivaca, grows especially well in areas in Texas. Good landscape plant, bees love it. Makes nice tasting tea, anti-cramping effect. Shows impact on neurological system, can slow or stop migraines.

Dalea – frutescens “black prairie clover”

Pulchra “Santa Catalina prairie clover”

Make lovely tea from leaves and flowers.

Question and answer for several minutes.

John has various classes and groups he teaches about foraging. Can sign up for newsletters and information at johnjslattery.com