

The taste of a honey—as well as its odor, texture and hue—can be determined by the type of vegetation from which bees extract their nectar, giving each type of honey a particular botanical and geographic stamp of origin. These nectar-bearing plants grow in certain biotactic and biogeographic conditions; thus in order to manage bee colonies it is critical to understand the distribution and seasonal flowering of these plant communities.

Recently it has come to attention that in order to effectively conserve and restore our tropical ecosystems it is important to demonstrate their value from an economic standpoint. Beekeeping is one of the few activities that depends upon the conservation of forests for production of its many useful products such as honey, pollen, propolis, royal jelly, and beeswax. Veracruz is experiencing a time in which ecosystem loss is at 80%, and there are few relics of virgin forest remaining. The state has entered into a phase of obligated restoration of ecosystems; these ecosystems could be restored with multi-purpose species, in this case species that are abundant producers of nectar and pollen, such as those species which appear in the highest percentages in our botanical analyses of honeys that come from our local ecosystems.

HONEY AND ITS ECOSYSTEMS

in central Veracruz



HIGH PLAINS

Brazillia nigris

Climate: Semi-arid with sporadic rainfall. Annual Precipitation: 700 mm.

Description: A very subtle but sweet nectar with a complex, clean profile. The honey comes almost entirely from two wildflowers, the "Pico de la Oca" and the "honey" wild member of angios. It has an extremely heavy texture, giving it the name "water honey".

Butter Honey
Compositae 52%

Other: 45%

Other: 45%

CLOUD FOREST/ COFFEE

Bursaria sinuata

Climate: Humid temperate forest. Annual Precipitation: 2000mm.

Description: Known as "honey coffee" because coffee is cultivated in the forest understory, it actually comes from a variety of plants that form the canopy of the cloud forest. It has a dark golden color and a strong aroma. Its taste is complex as the diversity of its nectar sources will give it a natural classification by itself.

Coffee Honey

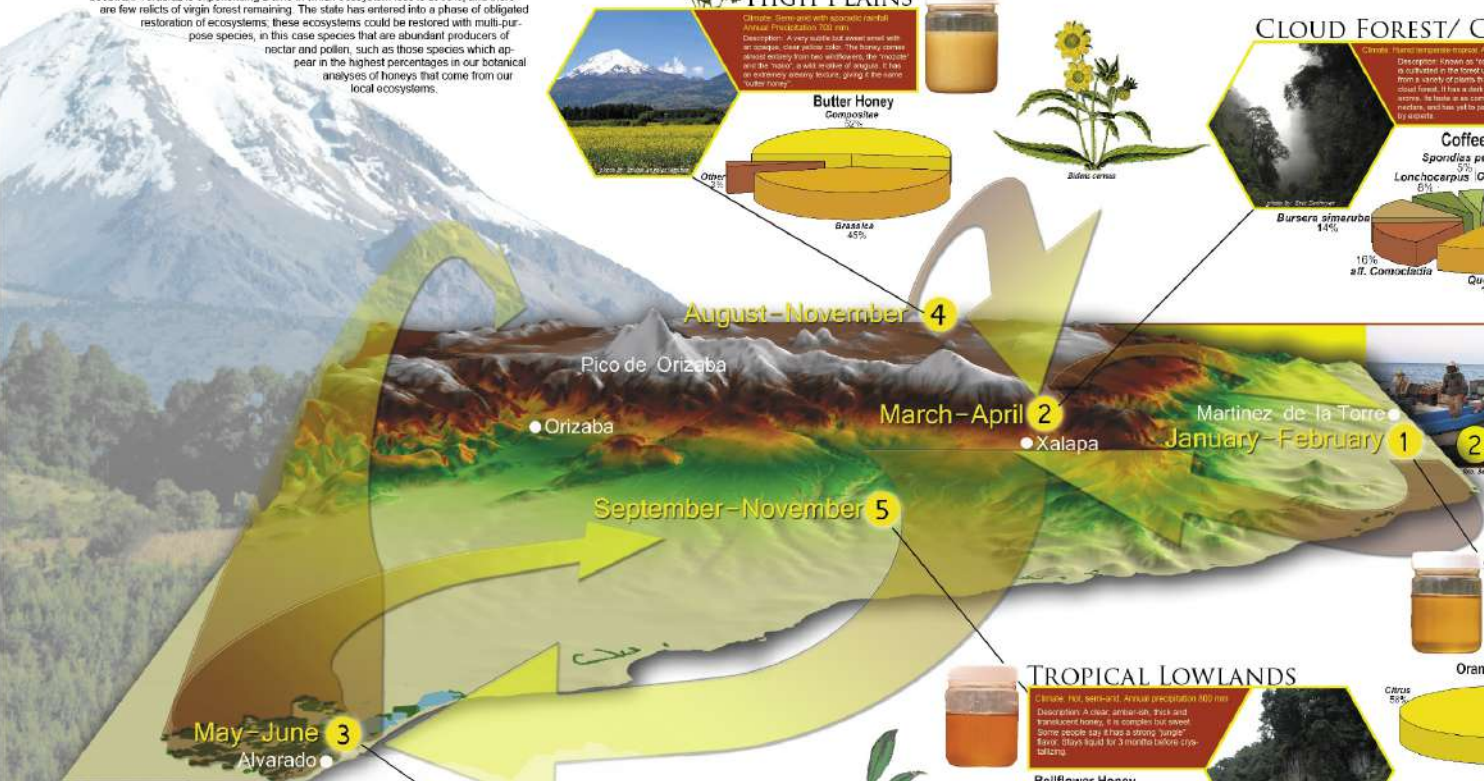
Sporidia purpurea 9%
Lonchocarpus 6%
Oreopanax 2%
Sambucus 2%
Other 8%
Coffea arabica 23%
Quercus 8%
all. Compositae 10%



GEOGRAPHIC AND BOTANICAL ORIGIN INSTRUMENTS FOR THE MARKETING OF HONEY

Veracruz produces a rich diversity of honeys; however in many cases honeys are commercialized, blended and sold in large quantities at bulk prices. The challenge for conservationists in Veracruz is to find niche markets that can appreciate honeys that come from distinct ecosystems, such as cloud forest, mangroves, and tropical evergreen forest, from a distinct geographical region and assemblage of plant communities. If we can develop high value markets for non-timber forest products from these ecosystems we can have a greater impact on their conservation and restoration.

It is widely known that a honey of single origin—such as orange blossom honey—has a higher market value than a honey that comes from multiple nectar sources. However, we believe that this is due to the simple principle that knowledge adds value. For example, providing knowledge of geographic origin, such as "cloud forest honey from the Nahuatl peoples of the Sierra Zolotica, Veracruz" has three indicators of added value: ecosystem of origin, cultural origin, and geographic location. An analysis of botanical origin can further provide information as to the origin of the nectar that bees extract and convert into their honey. This information is grouped with sensorial analyses of the honey and food pairings to give it a wine-type of gourmet market attractiveness. Instead of being bulk sold, the honeys are separated for their unique characteristics and sold in small volume to niche markets.



Colony Migration:

Apidiculture in Veracruz is a migratory activity. Beekeepers move their colonies following the flowering of their colonies. Given the diversity of climates and flora in Veracruz, it is possible to obtain five harvests of honey annually. The numbers on the map mark the sites that beekeepers visit and the movement of colonies throughout the year.

ORANGE GROVES

Climate: Humid tropical. Annual precipitation: 1900 mm.

Description: Although not a natural ecosystem, this honey is one of the most highly valued commercially. The honey has a beautiful crystal amber color and a strong, sweet but tart flavor typical of a ripe orange.

Orange Blossom Honey

Citrus 51%
Compositae 21%
Other 8%
Graminaceae 1%
Sambucus 1%

TROPICAL LOWLANDS

Climate: Hot, semi-arid. Annual precipitation: 800 mm.

Description: A clear, amberish, light and translucent honey, it is complex but sweet. Some people say it has a strong "jungle" flavor. It is used for medicinal purposes.

Bellflower Honey

Melicope 53%
Compositae 22%
Trema 2%
Other 4%
Malvaceae 1%
Leguminosae 3%
Casahuate 2%

MANGROVES

Climate: Humid Tropical. Annual precipitation: 2300 mm.

Description: Because of the unique diversity of mangrove flora in the Espangaco estuary, beekeepers come from all over southern Mexico, bringing 10,000 bees to the coast every year to harvest mangrove honey. It is a clear and very light honey, excellent for medicinal purposes.

Mangrove Honey

Avicennia germinans 30%
Phytolophora Mangie 33%
Lonchocarpus guianensis 17%
Oreopanax spp. 3%
Other 9%

Pronatura Veracruz is a Mexican non-profit with 501 (c)3 status that works to strengthen agriculture in Veracruz. More than 1200 beekeepers have benefited directly and indirectly from our research and training. If you would like to collaborate in the conservation of forests and production of their tasty honeys, contact us (see credits).

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1) SENSORIAL CLASSIFICATION

Proceedings for Honey Tasting

There exist a number of well-established steps for tasting of a honey that are used by panels of expert honey tasters. The majority of the population does not have any training, however anyone who loves honey can easily learn how to distinguish and appreciate its many attributes of color, smell, texture, and taste.

As a first step, try to isolate yourself from any distractions. Concentrate on the honey, on the thousands of business that these particular bees had to take to collect and process on this occasion, this exquisite and unique collection of wild nectars. One should not smoke or allow anyone to smoke nearby during a tasting. Avoid eating perfumes or lotions that might contact with the senses and tastes of the honey. Between each tasting wash out your mouth with water and breathe deeply.

- 1- Lift the jar of honey and observe its color. What colors do you see? Is it transparent or opaque? Is it a light amber or dark honey?
- 2- Bring the jar close to your nose and breathe in its aroma. Try to take the aroma to the bottom of your lungs and feel the passing of the flowers through your body. What does this honey remind you of? Does it take you to a field of wildflowers or to sweet moments of your childhood? Is it pleasant, smelly, or is there an unpleasantness about it?
- 3- Now take a spoonful of honey and taste it. With the point of your tongue, take a little more and spread over the entire palette of your tongue. Close your eyes for a moment. What does the taste remind you of? Is it fully smoky? Salty? What is the dominant flavor? What do you taste toward the end?

2) ANALYSIS OF BOTANICAL ORIGIN

Botanical origin is the genetic fingerprint of a honey, unique and irreplicable. Every honey contains a mix of nectars from different species of plants in varying percentages, rarely is a honey 100% from a single species. In order for a honey to be considered single origin it must have 50% or greater of its nectar come from a single species. In order to determine the origin of a honey, a laboratory technique called "melissopalynology" is used, by which the species and their percentage of nectar are determined by identifying pollen grains in the honey. With this technique it is possible to determine each and every type of flower that the bees visited during a given harvest period. Analysis of botanical origin are previously used to guarantee the product is natural and avoid false claims of origin; however, these analyses can also be used to provide ecological information to give the honey an added value, presenting it as an ecological product and certifying it as authentic to a given ecosystem. This analysis, together with a general classification of each honey, can provide us with the first time with the flavor of an ecosystem!

3) PROMOTION

Ecological Honeys

An "Ecological honey" does not exist presently in the market as a classification. However, there could and should be developed a certification for honeys that are harvested from conserved forests or reforested areas that are managed for non-timber forest products. The beekeeper should be an active participant in the conservation/restoration of forests in order to permit the growth of his honey production, however, this will only occur once markets are established that recognize a honey for its ecological value. The honeys of mangrove forests, tropical lowlands, cloud forest, and including the oakpine forests of the upper sierra should be classified and marketed as ecological products in conjunction with promoting activities for beekeepers involving the regeneration of these forests.

Honeys of Origin

The origin of a honey is what distinguishes it from any other competition. Its origin can be classified as geographic (such as "honey of the Pyrenees Mountains, France") or cultural (such as "Maya Honey"). The important thing is that the classification produces a singularity of place, a geographic or cultural landscape that is unique anywhere else in the world. Examples for the honeys of Veracruz could be: "Natural honey" or "honey of the Popocatepetl watershed" or in an ecological context "cloud forest honey". In addition to distinguishing the honey within a geographic, cultural or ecological boundary from other honeys in the market, a similar classification also reduces the volume available, giving the honey a uniqueness that is attractive to niche markets, and gives the product a greater economic value. The key to creating this added value for Veracruz honeys in the near future will be producing the analyses and information for classification, and organizing beekeepers to participate in classifying and certifying their honeys, as well as taking part in the restoration of forests.

