

ECTD_023 III (i)

TITLE: Second American Bee Journey.

Part III: Cuba

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III. CUBA AND MEXICO

The Central American countries I visited, and their beekeeping, were so completely new to me, and so different from anything I had seen before, that I have left them to the end of this account of my travels. It was my first experience of beekeeping in the tropics, and the difference from temperate-zone beekeeping which struck me most forcibly was the yearly cycle. This is not a summer/winter cycle where the dormant season is the cold one, but a wet-season/dry-season cycle where the dormant period (if any) is the rainy season. This is the cycle in the original Asiatic home of our honeybee *Apis mellifera*; its spread — alone among the species of *Apis* — into temperate zones was possible only because it developed the ability to survive their cold winters by the clustering of the colony.

The usual tropical colony cycle well north of the equator, at any rate in America, is roughly as follows. The wet season (June–September), which in many parts is also the hottest time of the year, is the least active season for the bees, but breeding continues throughout it. For the rest of the year (October–May) there is almost continuous bloom and nectar flow, with the peak from November or December to March. In some regions, for instance Yucatán, swarming *follows* the main flow. In others, such as the island of Cuba, where the wet season is less pronounced, there are two critical swarming periods, before and at the end of the main flow. In many areas queens can be reared and mated almost the whole year round, but the main queen-rearing periods are the 'swarming' seasons, after (and/or before) the main flow, which is itself the period of most rapid development of the colonies. Brood rearing is in general more closely related to the main flows than in the temperate zones.

South of the equator there is a six-months' shift in the cycle, the (hot) wet season with the least bee activity being November-March, and the (cooler) dry season with the greatest activity from April to September. In São Paulo, Brazil, for instance, the main flow (and main colony development) are in July/August, and the queen-rearing periods April/May and September [A.A.404/57]. Closer to the equator there are two (hot) wet periods, following the sun's two positions overhead, and two intermediate (cooler) dry seasons.

As a result of the continuous succession of nectar and pollen flows, and of the continuous breeding in the colonies, it is possible to obtain

very large honey crops. This was one of my interests in visiting Central America.

CUBA

Cuba lies between the Gulf of Mexico and the Caribbean Sea. When Columbus reached the island on 27th October 1492, on the voyage during which he discovered the New World, he wrote of it as 'the fairest land that human eyes have ever yet beheld'; it is still known as the 'Pearl of the Antilles'. In 1763, after Cuba had been under British rule for a year, it was ceded to Spain in exchange for Florida. It was probably then that honeybees were introduced to the island, and they flourished there. Beeswax was produced in ever-increasing amounts until over 2000 tons were exported in 1865; there are now about 200 000 colonies of bees, producing some 5000 tons of honey (about the same as Britain), and 300 tons of beeswax (Ordetx, 1957). The average yearly surplus from modern hives in Cuba is about 150 pounds; the apiary record is an average of 600 pounds per colony from an apiary with 150 colonies.

Although Cuba lies entirely within the Tropics, it took me only an hour to fly to Havana from Miami in Florida. I arrived on March 24th; already it was like high summer. My hosts and guides were Dr. and Mrs. Darío Espina Pérez, Professor and Mrs. Quiterio R. Fernández and Dr. Gonzalo S. Ordetx; I am greatly indebted to all of them for the time and trouble they took to show me something of Cuban beekeeping, and of

Havana and the surrounding country.

I had come too late for the main flow, mostly from species of *Ipomoea* and the royal palm (*Roystonea vegia*), but there was a wealth of bee flowers everywhere. Many times on our various excursions the car would come to a sudden halt and be put into rapid reverse (the Cubans are fast, fierce drivers), and someone would dash out to pick a specimen of blossoms we had just passed: by the end of each journey I was sitting in a veritable bower of flowers. There was no difficulty in identifying them, for Dr. Ordetx is the world's greatest authority on the bee plants of Central America [A.A. 27, 240/52]. His *Flora apícola de la America tropical* was a constant and invaluable companion on my travels.

One yellow Composite flower seemed to be everywhere. This was romerillo de Costa (Viguieria helianthoides), a close relative of the Spanish needles of Florida (p. 249); both species flower practically the whole year round. I found romerillo again in Yucatán, called by its Maya name tah, and there it is the second most important of all the nectar sources. Lipia (Lippia virgata) is a labiate plant which seemed like a beekeeper's dream come true; it is an attractive small shrub with long spikes of fragrant white flowers which secrete nectar freely, and it blooms for the greater part of the year. Some of the native flowering trees and bushes were spectacular: baría (Cordia gerascanthus), covered with trusses of whitish flowers, and coralillo (Pithecolobium arboreum), a mimosa with fluffy red heads of bloom. More brilliantly colourful still were the many species of Hibiscus, Bougainvillea and Oleander; I do not think the last two are worked by bees.

Then there were the cultivated plants valuable to bees — sugar cane, with its short but useful 'flow' after cutting (p. 250), bananas, which in March were between flowering and fruiting, and the many palms, all species of which are excellent nectar and pollen sources. Coffee and cocoa (also bee plants) were not in bloom, but I saw these and many more

unfamiliar cultivated plants at the Agricultural College near Santiago de las Vegas, of which Dr. Fernández is the head, and at the Experiment Station close by. Dr. Fernández used to be the Director of this Station, and everyone was delighted to have a visit from him. The Station apiary was

in one of the plantations, shaded by palm trees.

The finest apiary I visited in Cuba was that of the Compañia apicola de Cuba, an organization recently formed by Dr. and Mrs. Espina and Dr. Fernández. (Dr. Espina is also President of the Cuban Beekeepers' Association.) A beautiful avenue of royal palms leads to the apiary, of new Langstroth hives painted yellow, with aluminium roofs. There was one hive as large as four normal hives side by side; this has been designed by Dr. Espina for the production of royal jelly, which is one of the interests of the new Company. The queen cells are on bars attached to the underside of the roof (the temperature is high enough to make this practicable), and various entrances and escapes are arranged so that fresh supplies of young bees are continually provided in the part of the hive with the queen cells.

The dry and wet seasons are not as clearly marked in Cuba as in many parts of the Tropics, and I certainly encountered some severe storms there in March. One in particular I remember. The day had been hot, and by sunset the lightning had started. Looking out of my window to the Presidential Palace, seeing the rooftops lit up by the lightning flashes and listening to the hubbub in the hot still night (Havana is quite the noisiest town I have ever encountered), it seemed to me that anything in the way of uprisings or revolutions could happen. There had in fact been a revolution a few days before I arrived; in the Palace of Fine Arts, where some of the shooting had taken place, we saw many bullet holes still in the curtains; some of those on the walls had however been hidden by a judicious rearrangement of the pictures on display.

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- Correction to p. 233: Dr. Haydak's pollen substitute contains also 1 part dried brewer's yeast.