Explore the world of beekeeping <Part 6>

Conventional Apiculture in Qeshm Island, Iran

The Iranian island of Qeshm in the Strait of Hormuz, is registered as a UNESCO Geopark due to its scenic natural resources including Hala which is recognized as the largest mangrove forest in the Persian Gulf. The JICA Project for Community-Based Sustainable Development Master Plan of Qeshm Island towards "Eco- Island" was carried out and a preliminary survey for pilot project formulation aiming to create a producer's association of mangrove honey was implemented in 2016. In this article, we report on the native primitive honeybee and its conventional apiculture on the island.

The Europian honeybee (*Apis spp.*) adopted for modern apiculture on the Iranian mainland can not be found on Qeshm which sometimes records air temperatures of over 50 ° C. Instead, dwarf honeybees (*Apis florea*) that have acclimatized to the hot and arid climate are commonly observed here (Hepburn et.al., 2005). *A. florea* is spread throughout the Asian Continent, and the Persian Gulf area marks the west end of its distribution (Takahashi, 2006).

According to the inter-species phylogenetic tree analysis for existing honeybees (Takahashi, 2005), *A. flora* comprises the subgenus Micrapis, which first appeared about 3,500 to 4,000 years ago inSouth and Southeast agia, and is recognized as one of the most ancient strains of honeybee. Among the extant members of Apis, the more primitive species, including *A. flora*, make exposed single combs, while the more recently evolved species, including *A. melifera*, build nests with multiple combs in cavities and enclosed spaces – a trait which has greatly facilitated their domestication. Domestication of dwarf honeybees using modern portable beehives has not seen success, due to the primitive single exposed comb nesting method (Yoshida, 2000). On the Iranian mainland *A. melifera* is commonly raised using technologies developed from traditional bee hive boxes. However A.flora have been farmed using no consistently conventional methods.

The typical way of apiculture that this author observed on the island is as follows; beekeepers build small sheds of cement-brick called "honey houses" each divided into several chambers by bricks and plastic waterproof sheets. Each chamber has a small entrance in the cement-brick wall, and the comb removed from the original colony is suspended near the windows with strings and PVC pipes. Tin cans filled with oil are attached to the base of hanging strings for the purpose of detering ants.

Upper part of the comb was pinched with PVC pipes, and suspended from ceiling beam

In addition to the mangrove (*Phizophora mucronata*), Lotus tree (*Zizyphus lotus*) a species from the Mediterranean related to the date (*Z. jujube*), and Acacia trees (*Acacia spp.*) are recognized as the key honey plants on the island. Traditional Herbal Medicine pharmacies in Qeshm city sell mangrove honey for IRR 3,000,000 to 4,000,000 per bottle (750cc), compared to the Lotus honey for IRR 1,500,000 (as of July 2016: IRR 30,000/ US$ 1). However local people prefer Lotus honey because mangrove honey often tastes slightly salty, depending on the original distribution of honey plants.

The period of collecting honey lasts roughly 4 months between the Iranian New Year in the middle of March and the end of June, and is totally dependant on the sucessful flowering of honey plants. Beekeepers can harvest about 1kg of honey from a comb after 1 month through a process of splitting beehives, rebuilding comb and final extraction. They said it was a good enough result if 20 kg of honey was yielded within a season.

The Pilot project formulation did not ultimately come to fruition, but the preliminary survey did yield interesting observations and knowledge regarding the local honey bee and the methods of apiculture that are practised on the island.

Reservation in advance required to buy mangrove honey in Qeshm city