

Bees: The World's "Atlas" - Solution to the *Apis mellifera* Decrease, a Sonora State Case Study

Corona Palazuelos, Astrid

Corona Palazuelos, Abraham

Honeybee (*Apis mellifera*) populations are collapsing worldwide, phenomenon that is called Colony Collapse Disorder. The causes of CCD are not precisely known. The importance of bees lies in the fact that they are in charge of an essential process for the sustenance of life on earth: pollination. Therefore, what can be done to help honeybees? This project researched, through interviews with expert local beekeepers, what has caused honeybee decreases in Sonora and the results we obtained were: parasites and diseases, pesticides, and climate change. This research's goal was to plan a sanctuary for the protection, preservation and well-being of the honeybee. It was adapted to Sonora's environmental conditions, and it aims to preserve regional endangered and threatened flora through the protection of the honeybee. It is composed of 9ha divided in a 3x3 grid. The Central Hectare contains the flora and beehives and the Surrounding Hectares contain crops that need pollination mediated by bees in order to properly develop. We also found out about the public's perception of bees and learned that they do not give them the importance they deserve, since the awareness and knowledge about this topic is reduced. However, through the interviews we received positive responses and support about the sanctuary and its implementation, the beekeepers deemed it necessary. The viability is also supported by the fact that in the past projects and initiatives to protect the bees in Sonora have worked successfully. Beekeepers noted that the sanctuary could ignite peoples' interest to protect and preserve the honeybee, and create awareness of their relevance in the ecosystem.

Awards Won: