

ON 1,400 WINGS: TURTLE BAY'S BUTTERFLIES!

Lee H. Simons

Turtle Bay Exploration Park, P.O. Box 992360, Redding, CA 96099-2360, USA

Turtle Bay Exploration Park is a non-profit organization that offers engaging, fun, and educational exhibits and experiences to visitors of all ages including residents, visitors to the area, and travelers along the Interstate 5 corridor. Turtle Bay's attractions are meant to have regional significance while exploring broader relationships and implications. Emphasis is placed on high quality presentations that challenge visitors to think further. While many disciplines are explicitly pursued at Turtle Bay, including human and natural history, art, and human connections to the environment, a further emphasis at Turtle Bay is placed on merging areas of human endeavor and knowledge. Turtle Bay strives to take visitors beyond multidisciplinary to interdisciplinary. Humans are biophilic, however, and living things are an effective way to catch and hold attentions. With this in mind, Turtle Bay developed its Butterflies! concept. The central feature is a thirty foot wide by 100 foot long mesh enclosure containing many hundreds of butterflies. Humans enter and exit the enclosure through darkened double-door vestibules. Inside, visitors are surrounded by a lush garden visited frequently by butterflies of many shapes and colors. Supporting the enclosure are outdoor gardens frequented by local pollinators, a butterfly-themed store, and many opportunities for self and guided discovery. The exhibit has been a success since its debut in spring 1999, opening for its fourth season a few weeks ago (roughly June through September each year).

Each spring the house is reconditioned after sitting idle all winter. Four to six hundred butterflies arrive each week as chrysalids from butterfly farmers in Florida, Texas, and California. Chrysalids are hung in one of four enclosed rearing chambers each accessible via a socklet to allow the removal of parasitoids (a rare occurrence). At least 25% of the chrysalids are always displayed to the public creating great delight when butterflies emerge. Seasonal butterfly specialists, docents, and Museum Teen Volunteers help visitors understand what they observe...and how to observe well in the first place. Peoples' experiences at the house improve dramatically with the aid of these interpreters. These people also ensure that rules are followed, such as live butterflies are not caught or otherwise harassed and are not removed from the enclosure. A team of horticulturists, supervised by a master gardener, work five days a week to water, weed, fertilize, deadhead, and control pests within the enclosure. The horticulturists' goal is to provide both aesthetics and a maximum of blooms on which the adult butterflies feed. Three small ponds also help provide an optimal environment both for the butterflies and people. Because the enclosure creates 10 to 40% shading, aphids, whiteflies, mites, and baby caterpillars pose chronic challenges. An IPM program has evolved over the years and currently involves removal of infested materials (after bagging, spraying with bleach, and double-bagging to ensure things are dead), hand washing of plants to remove pests, and the periodic release of beneficial insects (wasps and lacewing larva). Lizards, ants, and spiders can also cause problems.