The monarchs' flight may only be of fancy

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MONARCH butterflies, celebrated locally for their winter arrival, may not be the heroic travelers they were thought to be.

Every winter, the monarchs come in throngs to Santa Cruz and gather in eucalpytus trees in a ravine at Natural Bridges State Park. They also come to perch in several cypress trees behind the Santa Cruz museum.

The monarch, which suddenly appears along the Pacific coast each winter, was long thought to have migrated from as far as northern Canada.

A study released this month by Adrian Wenner, professor of natural history at UC Santa Barbara and graduate student Ann Harris, indicates monarchs may not travel the heroic 1,800-mile trip.

Wenner and Harris argue the winter butterflies are created by local breeding populations and probably do not fly in from faraway places. In spring, according to their hypothesis, monarchs disperse randomly in search of milkweed, their sole food source. Many fly north following the plant's emergence, reproducing as they go. In fall, most of the butterflies in the north are killed by cold temperatures.

The researchers' four-year study, conducted in Santa Barbara, found little evidence for migratory behavior. Their studies are supported by similar findings performed in Australia.

The life of the Santa Barbara monarchs, as reconstructed by Wenner and Harris, is much more docile than the one filled with transcontinental flights.

Thousands of monarchs can be seen from fall to mid-February in Santa Barbara. Since they disband from Santa Barbara so early, according to Wenner, the monarchs heading north or east would freeze to death. Also, he adds, the number of local eggs and caterpillars following the migration would decrease.

Wenner and Harris have found no decline in eggs following migration. Instead, they have found large numbers of monarch eggs and caterpillars on coastal milkweed patches. The egg laying, they report, continues in full swing until May.

In late spring, when the Pacific coast is usually foggy the researchers found fresh milkweed in the interior valleys and mountain areas. They believe monarchs follow their food as the number of butterfly sightings increase inland and decrease near the coast.

Massive egg-laying in the fall plus the fact monarchs in winter appear fresh and not worn from travel, has convinced Wenner and Harris most of the butterflies in Santa Barbara mature locally, and do not fly in from faraway places.

The researchers' theory sharply contrasts with the migration theory in which scientists try to explain the sudden appearance of monarchs in winter as the result of long migratory travels.

Wenner says the two theories can be tested by a comparative chemical analysis on adult monarchs and the plants they feed on as caterpillars. This, the professor believes, will determine whether the adult monarchs bred locally or immigrate from faraway places.