

Liam O'Brien - Summation of Field Work

2021 Yerba Buena Island Butterfly Inventory

Prepared for the Treasure Island Development Authority – December 2021

January 20, 2021 from 10:00 A to 1:00 P

- Walkabout with Peter Brastow to show me a good transect to establish on the island. Showed me a good place to cross roads and got a great sense of the development on the island.

- **Saw no butterflies** this day and did not expect to: majority of butterflies overwinter and do not take wing till rains of spring end.

February 21, 2021 10-3 pm (5 hours)

- Walked transect that had been established with Brastow one month prior.

- **Saw no butterflies.** Surprised me. I thought for sure I'd have first Cabbage White of season. Did not occur Non-native weeds that many butterflies depend on more established than one month prior. Many nectar sources finally appearing. February, like January, is a bit of a throwaway month for butterflies. Still delayed due to winter.

March 7, 2021 from 10:00 A to 3:00 P

Finally! Two [Anise Swallowtails \(Papilio zelicaon\)](#) at the summit (western). Small males connoting beginning of flight. Strange not to see more species hill-topping by now. Where are the Red Admirals? Anise Swallowtail no doubt hosting (laying eggs on) on non-native fennel.

March 21, 2021 from 11:00 A to 3:00 P

“- (3) **Anise Swallowtails** total: 1 west summit, 2 east summit female observed hill-topping, connoting advance flight (females emerge later in flight)

- Coast guard property surveyed. No other species observed.”

April 11, 2021 from 10:00 A to 3:00 P

“- (5) **Anise Swallowtails** hill-topping. Majority worn by now/nearing end of flight.

- (1) [Calif. Pipevine Swallowtail](#) (male) observed and photographed nectaring on Blue dicks. This is a great sign that *Aristolochia Californica* (Dutchman's Pipe-vine the plant, the lone plant, she hosts on is still doing well on the island

and has not been affected by development)

I have a theory already as to why more butterflies have not been seen so far on the island. The bulldozing/grading probably took out many weeds that were full of caterpillars. All the plants that are up now are new growth, void of larvae.

Total Species to date: 2”

April 25, 2021 from 11:00 A to 1:00 P

“Arrived at 11 am and began transect walk. Many more nectar sources apparent since last visit. Waited for clouds to clear but they actually increased. Not surprised to only have one **Anise Swallowtail** at summit. Lost butterfly weather and left after two hours.”

May 2, 2021 starting at 11:30 A

“Arrived at 11:30, began transect walk. Weather vastly improved over last visit. Had a single **Pipevine Swallowtail** near Oak Woodland nectaring on Blackberry vine. Two more at the second summit. Two **Anise Swallowtail** at first summit. These two species continue to be the only species observed on the island. No whites, brushfoots or skippers seen yet.”

May 31, 2021 from 12:30 P to 3:30 P

“- Decided to push my arrival time later (12:30) in hopes of observing more hilltopping at the summits. Started towards the Oak Woodland and along the road observed **Rural Skippers (*Ochlodes agricola*)** darting about in the dappled shade. This was the butterfly I hoped to observe on this inventory. This is the only place it flies in SF County and was first seen here in 2009. Saw four this day. Crossed over to willow near stairs down to Clipper Cove and saw first of four **Cabbage Whites** for the day. Hike up to summits revealed (5) **Anise Swallowtail** and (1) **Pipevine Swallowtail**.

- No butterflies observed on Coast Guard property.”

June 12, 2021 from 11:30 A to 1:30 P

“Arrived on island at 11:30 am. Went to willow alcove (w 2 buckeye trees.) Saw single **Pipevine Swallowtail** nectaring on *Buddleia davidii*. Lone **Cabbage White** as well. Then walked the road to Oak Woodland habitat. Observed (3) **Rural Skippers** along road, none in the Oak Woodland. Decided to post to iNat at least one rural skipper from each visit henceforth to get a sense of butterflies’ flight on the island. One **Anise Swallowtail** and one **Pipevine** at summit. Visit cut brief due to high winds. Finished: 1:30 pm”

June 27, 2021 starting at 11:45 A

“Arrived on island at 11:45 and decided to hike straight over to Coast Guard property first. Hoping to photograph **Rural Skippers** there. I continue to see absolutely no butterflies on that side of the island nor any Nymphalids at the hilltops. Two **Anise Swallowtails** and two **Pipevine** at the summit. One **Rural Skipper** on the western side of the island along the main road.”

July 18, 2021 from 12:00 P to 3:00 P

“Exciting day. I said on bus (arriving) 12 noon “I really should see [Western Tigers](#) by now.” And I had a small male within minutes of arrival behind building above Clipper Cove. Females the observed nectaring on Buddleia and last of Buckeye blossoms. **Ochlodes agricola** in good numbers still, but I noticed some of them were heavily marked below like [Woodland Skipper \(Ochlodes sylvanoides\)](#) near the oak forrest (sic).

Started up the hill onto the construction zone and came upon [Common Checkered Skipper \(B. communis\)](#) female, 6th new species for inventory. One **Anise Swallowtail** at summit, still no Nymphalid present (surreal). Photographed one of the heavily marked Skippers. Posted it to iNaturalist and it confirmed **Woodland Skipper** (O. sylvanoides) 7th new species for project.”

August 1, 2021 from 1:00 P to 3:00 P

“Began down in Clipper Cove looking for Sandhill Skippers on the saltgrass. No such luck. Had a **Western Tiger** and **Anise Swallowtail** right off the bat and thought maybe I would see all three Swallowtail species, but never saw the Pipevine. Woodland Skippers have increased in abundance and **Rural Skippers** have diminished since last visit. Saw Common Checkered Skipper is same place on slope as before. At summit #1 a [Red Admiral](#) landed near me—the first Brushfoot in 7 months of inventorying. A worn [American Lady](#) on Summit #2 rounded out the new species for the day. There are the #8+#9th species seen. Survey cut short due to high winds.”

August 22, 2021 from 12:00 P to 4:00 P

“Made the long hike to Coast Guard property from the start. Reward w/ my first butterfly, the **Woodland Skipper**, on this part of the island for the survey (made sense since I saw my first **Rural Skipper** over here many years back). The two species of Ochlodes are found all the way around the island. Found nice patches of Jupiter’s Beard in bloom at the first summit and observed [American](#)

Painted Lady, one male/one female nectaring. Fresh **Anise Swallowtail** there as well. Lone Red Admiral on second summit. Always great to end the day with a new species, the Common Buckeye (*Junonia coenia*). This is the 10th species seen on this island during this inventory.”

September 5, 2021 from 12:00 P to 3:00 P

“Arrived at 12 noon. Nectar sources drying up quickly but a few seaside daisy flowers remain pulling in Woodland Skippers. I believe the generation of this species has peaked and will see less and less on following visits. **American Ladies** still in numbers and clearly breeding on island. Numbers of Common Checkered Skippers in high numbers. No new species this visit.”

September 19, 2021 from 12:00 P to 4:00 P

“Well, when it rains it pours on this project: 1st butterfly seen today Gray Hairstreak—first member of Lydaenidae family (and now species in all five families observed on island) up the hill going towards Summit #1 a small chocolate brown Skipper observed—enough of top forewing confirmed Umber Skipper—a species I had seen in abundance in 2009. At the pump house, in amongst four American Ladies on the Jupiter’s Beard blossoms a lone Paint Lady seen. These species (#11, #12 and #13) now tie the baseline of 13 I saw in 2009. A really swell day there.”

October 3, 2021 starting at 12:00 P

“Arrived to island at 12 o’clock. Weather was sunny/mild. **Cabbage Whites** only thing seen below before summiting. Great to see all the new native plants on the new path. Actually, had a **Gray Hairstreak** on one of the plants. **Common Checkered Skipper** numbers diminishing—the mallow host becoming woody. Most **Umber Skippers** height of brood. **American Lady** and **Anise Swallowtail** both summiting Peak #2. Total species: 6.”

“*And then the rains began. Consecutive days of hard rain throughout Oct. Hard to find a day to return in later month.”

October 24th, no time mentioned

“Vegetation on the island got hammered by the rains. Virtually no nectar sources and it is safe to say adult butterfly #s were hit drastically, probably advancing the season drastically. Still made an effort to survey Coast Guard property. Nothing. Three total individuals for whole day: (1) **Cabbage White**, (1) **Red Admiral**, and (1) **Umber Skipper**. Rest of season should be interesting...”

November 7th, no time mentioned

“Just when I’m ready to write off season, my first **Monarch** floats over my head halfway up Peak #1—my 14th species of inventory. Ran madly to try and get a shot of it to no avail. Still took point for iNaturalist posting. Reminded me of years back here seeing many at Peak #2. And if that wasn’t cool enough, my 15th species lands before me at lunch—the **West Coast Painted Lady** (*Vanessa annabelta*). Wondered why I hadn’t seen it earlier in year. Good to know all four Vanessas fly here.”

November 21st, no time mentioned

“Much more rain. Seeing so few butterflies confirms season is advanced. All overwintering species no doubt have found their winter digs to hold up in. Nice to see two **Monarchs**, both floating in a north, northeasterly trajectory. One hilltopping **Red Admiral**.”

December 5th, no time mentioned

“Rain cut short my visit this day. One hilltopping **Red Admiral** looking ratty (and is probably the same one I came upon last visit). Season no doubt over.”

December 12th, no time mentioned

“A window in the constant rain opened and I bused over slightly later to catch any remaining hill toppers for my last visit of the year. A great deal of hiking for not a single butterfly, which was to be expected.

It’s been a fantastic opportunity, this year on the island. Nice discoveries to elude (this is what was written) to in final report. Nice to have had the place virtually to myself before all the residents move into the new condos-to-be.”