

**BUTTERFLIES OF SOUTH FLORIDA, MAY 2014, WITH TAXONOMIC NOTES ON *HERACLIDES ANDRAEMON* (PAPILIONIDAE) AND A NEW LARVAL FOODPLANT RECORD FOR *KRICOGONIA LYSIDE* (PIERIDAE)**

BY

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South Florida is known for its unique tropical fauna of Lepidoptera, with many species and subspecies not found elsewhere in the United States. From a young age, I've casually studied South Florida's butterfly fauna from afar, trying to imagine the butterflies and their habitats through literature accounts (e.g., Minno & Emmel, 1993) and conversations with residents and visitors. Even though I first arrived in Florida (Gainesville) in August 2006, it took me until August 2013, to make my first butterfly-related trip to South Florida, mainly for the Pink-spot Sulphur (*Aphrissa neleis*), a species I had been writing about ever since detecting its presence in the USA for the first time in 2011 in the McGuire Center's collection (Warren & Calhoun, 2011, 2012). Fieldwork on the 2013 trip, however, consisted mainly of collecting along neighborhood streets, due to the urban habitat of *A. neleis* and its non-native larval foodplant, *Lysiloma sabicu*.

The main reason it took me so long to make it down to South Florida to look for butterflies was that I already knew there is essentially no habitat available where one can collect butterflies. I had known that, due to habitat destruction caused by the millions of residents in the area through urban development and agriculture, very few natural areas remain. I had no real idea, however, how frighteningly small the remaining natural areas are, and how restricted the remaining distributions of some South Florida butterfly species have become.

During the second week of May 2014, I had the opportunity to make a second butterfly-related trip to South Florida. The primary objective of the trip was to participate in the annual survey of the Schaus' Swallowtail (*Heraclides aristodemus ponceanus*) on Elliott Key, within Biscayne National Park. I also took the opportunity to briefly explore butterfly habitats in the Homestead area, as well as in the Florida Keys. After having spent the past eight years curating butterfly specimens from South Florida in the McGuire Center collection, I really wanted to familiarize myself with some of the localities in the region that lepidopterists have been frequently visiting for the past 60 years. Because the majority of these areas are now off-limits to collecting, I instead concentrated on obtaining photographs of as many species as possible.

The expedition began on May 9<sup>th</sup>, upon departing the headquarters of Biscayne National Park on a boat headed

to Elliott Key. Fieldwork was conducted on Elliott Key on May 9<sup>th</sup>, 10<sup>th</sup>, and 11<sup>th</sup>, with a few observations on the morning of May 12<sup>th</sup> before returning to the mainland shortly after noon. The main objective of fieldwork on Elliott Key was to initiate the 2014 annual survey for the Schaus' Swallowtail (*Heraclides aristodemus ponceanus*). Fortunately, these butterflies had just begun flying, and I captured, marked, and photographed 18 males between the 9<sup>th</sup> and 11<sup>th</sup> (Figs. 1-4). In addition, several adults of the Bahamian Swallowtail (*Heraclides andraemon*) were observed, and several were netted and photographed (Figs. 5-14, see taxonomic comments below). It was found that adults of both Schaus' and Bahamian Swallowtails would, more often than not, briefly rest with their wings spread for a few moments just after being released, allowing opportunities for close-up photography. Overall, conditions were extremely dry on Elliott Key, and few butterflies other than the swallowtails were seen, the main highlights being 1-2 Mangrove Skippers (*Phocides pigmalion okeechobee*, Figs. 15-16) and 2-3 Mangrove Buckeyes (*Junonia genoveva*) each day. One Florida Purplewing (*Eunica tatila tatilista*) was seen from a distance on May 10<sup>th</sup>.

After returning to the mainland from Elliott Key, the afternoon of May 12<sup>th</sup> was spent briefly investigating sites along Card Sound Road, southeast of Homestead. Habitats consisted of dirt roads and highway margins, all of which were highly disturbed, and most were heavily littered with trash. Very few butterflies were seen. The evening of the 12<sup>th</sup> was spent in Homestead. After 3 nights on Elliott Key, I was pleasantly surprised to find that Homestead is full of great Mexican restaurants, which are almost as likely as the butterflies to bring me back to the area in the future!

The first site I visited on May 13<sup>th</sup> was Camp Oawissa Bauer. I really wanted to find the Dina Yellow (*Pyrisitia dina helios*), a South Florida specialty species; almost all of the specimens of this taxon in the McGuire Center collection originated at Camp Oawissa Bauer, so I wanted to familiarize myself with the habitats there. Fortunately, no groups were camping in the lodges, so I had the run of the place. Surprisingly few butterflies were seen, although I was lucky enough to find and photograph a few Dina Yellows (Figs. 17-18). A fresh male Large Orange Sulphur (*Phoebis agarithe maxima*, Fig. 19) also posed for close-up photos when a cloud briefly obscured the sun.



Fig. 1. *Heraclides aristodemus ponceanus*, male dorsal, FLORIDA: Miami-Dade County: Elliott Key, Biscayne National Park, 11-V-2014.



Fig. 2. *Heraclides aristodemus ponceanus*, male dorsal, FLORIDA: Miami-Dade County: Elliott Key, Biscayne National Park, 10-V-2014.



Fig. 3. *Heraclides aristodemus ponceanus*, male dorsal, FLORIDA: Miami-Dade County: Elliott Key, Biscayne National Park, 11-V-2014.



Fig. 4. *Heraclides aristodemus ponceanus*, marked male ventral, FLORIDA: Miami-Dade County: Elliott Key, Biscayne National Park, 10-V-2014.

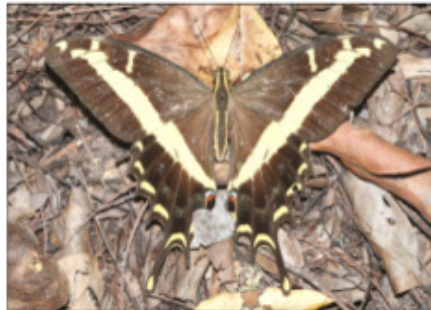


Fig. 5. *Heraclides andraemon*, male dorsal, FLORIDA: Miami-Dade County: Elliott Key, Biscayne National Park, 9-V-2014. [Figs. 5 (dorsal) and 6 (ventral) are the same specimen.]



Fig. 6. *Heraclides andraemon*, male ventral, FLORIDA: Miami-Dade County: Elliott Key, Biscayne National Park, 9-V-2014. [Figs. 5 (d) and 6 (v) are the same specimen.]



Fig. 7. *Heraclides andraemon*, male dorsal, FLORIDA: Miami-Dade County: Elliott Key, Biscayne National Park, 10-V-2014. [Figs. 7 (d) and 8 (v) are the same specimen.]



Fig. 8. *Heraclides andraemon*, male ventral, FLORIDA: Miami-Dade County: Elliott Key, Biscayne National Park, 10-V-2014. [Figs. 7 (d) and 8 (v) are the same specimen.]





Fig. 9. *Heraclides andraemon*, female dorsal, FLORIDA: Miami-Dade County: Elliott Key, Biscayne National Park, 11-V-2014. [Figs. 9 (d) and 10 (v) are the same specimen.]



Fig. 10. *Heraclides andraemon*, female ventral, FLORIDA: Miami-Dade County: Elliott Key, Biscayne National Park, 11-V-2014. [Figs. 9 (d) and 10 (v) are the same specimen.]



Fig. 11. *Heraclides andraemon*, female dorsal, FLORIDA: Miami-Dade County: Elliott Key, Biscayne National Park, 11-V-2014. [Figs. 11 (d) and 12 (v) are the same specimen.]



Fig. 12. *Heraclides andraemon*, female ventral, FLORIDA: Miami-Dade County: Elliott Key, Biscayne National Park, 11-V-2014. [Figs. 11 (d) and 12 (v) are the same specimen.]



Fig. 13. *Heraclides andraemon*, female ventral, FLORIDA: Miami-Dade County: Elliott Key, Biscayne National Park, 9-V-2014. [Figs. 13 and 14 are the 3<sup>rd</sup> and 4<sup>th</sup> female specimens, that I couldn't get dorsal shots of.]



Fig. 14. *Heraclides andraemon*, female ventral, FLORIDA: Miami-Dade County: Elliott Key, Biscayne National Park, 9-V-2014. [Figs. 13 and 14 are the 3<sup>rd</sup> and 4<sup>th</sup> female specimens, that I couldn't get dorsal shots of.]



Fig. 15. *Phocides pigmalion okeechobee*, male, FLORIDA: Monroe County: Key West Tropical Forest and Botanical Garden, Stock Island, 14-V-2014.



Fig. 16. *Phocides pigmalion okeechobee*, female, FLORIDA: Monroe County: Key West Tropical Forest and Botanical Garden, Stock Island, 14-V-2014.



Fig. 17. *Pyrisitia dina helios*, male, FLORIDA: Miami-Dade County: Camp Owaissa Bauer, N of Homestead, 13-V-2014.



Fig. 18. *Pyrisitia dina helios*, female, FLORIDA: Miami-Dade County: Camp Owaissa Bauer, N of Homestead, 13-V-2014.



Fig. 19. *Phoebis agarithe maxima*, male, FLORIDA: Miami-Dade County: Camp Owaissa Bauer, N of Homestead, 13-V-2014.



Fig. 20. *Electrostrymon angelia angelia*, male, FLORIDA: Miami-Dade County: Castellow Hammock Park, NE of Homestead, 13-V-2014.



Fig. 21. *Electrostrymon angelia angelia*, female, FLORIDA: Miami-Dade County: Castellow Hammock Park, NE of Homestead, 13-V-2014.



Fig. 22. *Cymaenes tripunctus tripunctus*, female, FLORIDA: Miami-Dade County: Castellow Hammock Park, NE of Homestead, 13-V-2014.



Fig. 23. *Marpesia petreus*, female dorsal, FLORIDA: Miami-Dade County: Castellow Hammock Park, NE of Homestead, 13-V-2014.



Fig. 24. *Marpesia petreus*, female ventral, FLORIDA: Miami-Dade County: Castellow Hammock Park, NE of Homestead, 13-V-2014.



After spending all morning at Camp Owaissa Bauer, I headed to Castellow Hammock Park, another site I had repeatedly seen on specimen labels. I didn't have any specific objectives here, but just wanted to get to know the habitat. Other than multiple Zebra Longwings (*Heliconius charithonia tuckeri*), only one male Dina Yellow and one male Fulvous Hairstreak (*Electrostrymon a. angelia*) were seen within the hammock. The northwest fence line of the hammock, bordering Costa Farms, was more productive, where a few Fulvous Hairstreaks were found and photographed (Figs. 20-21), together with Three-spotted Skippers (*Cymaenes t. tripunctus*, Fig. 22) and a very friendly and cooperative Ruddy Daggerwing (*Marpesia petreus*) that crawled onto my finger (Figs. 23-24).

It was almost 3:00 pm when I left Castellow Hammock, and I needed a break from the heat, so I drove down to Navy Wells Pineland Preserve, east of Homestead. The Preserve consists of some very nice-looking pineland habitat, but conditions were very dry. Essentially no nectar sources were found, thus, very few butterflies were observed, and most of those were seen from the car. After declaring the site unproductive, I decided that I probably had time for one or two more stops, so I headed to a nearby site I'd never heard mentioned before, Fuchs Hammock Preserve. This tiny preserve is located north of SW 304<sup>th</sup> St., between SW 197<sup>th</sup> and SW 202<sup>nd</sup> Ave., northwest of Homestead, and as I learned, is completely fenced off and inaccessible. Upon asking a neighbor about access to the park, he said there is no public access, and that in 15 years of living right next to the park, he had never been inside. So I headed back towards Homestead, and made one last stop at Modello Wayside Park. This is a tiny park at the southwest corner of the junction of SW 288<sup>th</sup> St. and US Hwy. 1, consisting of a lawn and about 70-80 trees sandwiched between busy streets. Fortunately, about half of the trees in the park are *Lysiloma sabicu*, and in the back (southwest) corner of the park are 5 large flowering



Fig. 25. *Aphrissa neleis*, male dorsal, FLORIDA: Miami-Dade County: Modello Wayside Park, N of Homestead, 13-V-2014.

bushes. This combination proved perfect for the Pink-Spot Sulphur (*Aphrissa neleis*, Figs. 25-26), which

appears to be a breeding resident in the park. Luckily, a couple of males of the Statira Sulphur (*Aphrissa statira floridensis*, Fig. 27) were also present at the flowers, allowing for side-by-side comparison of the two similar *Aphrissa* species.

After a relatively successful day of butterfly photography the day before, and a second night of delicious Mexican food in Homestead, I headed into the Florida Keys on May 14<sup>th</sup>. The goal was to reach Key West, and see all the habitats between there and Homestead, even if it meant not stopping much along the way. The first half of the trip was very windy, with scattered rain showers, but by the time I reached Big Pine Key it was sunny. I headed straight to the nature trails just northwest of Blue Hole, and was happy to find the Florida Duskywing (*Ephyriades brunnea floridensis*) in great abundance, with several dozen adults of both



Fig. 26. *Aphrissa neleis*, male ventral, FLORIDA: Miami-Dade County: Modello Wayside Park, N of Homestead, 13-V-2014.



Fig. 27. *Aphrissa statira floridensis*, male ventral, FLORIDA: Miami-Dade County: Modello Wayside Park, N of Homestead, 13-V-2014.

sexes present, and several females ovipositing on the larval foodplant *Brysonima lucida*; various adults were surprisingly sedentary and allowed close-up photography for extended periods of time (Figs. 28-29). Few other butterflies were seen there or around Blue Hole, so I

headed on towards Key West. After a brief stop on Sugarloaf Key (only to find the northern half of the island inaccessible to me), and a quick drive along the south coast of Key West, I found my way to the Key West Tropical Forest and Botanical Garden on Stock Island. Despite the small size of the garden, it was by far the best site I had seen for butterflies during the week, with 21 species recorded in just 1.5 hours. Highlights included a fresh female Mangrove Skipper (Fig. 16), a few Hammock Skippers (*Polygonus leo histrio*, Fig. 30), numerous Monk Skippers (*Asbolis*

*capucinus*, Fig. 31), a probable male Yellow Angled-sulphur (*Anteos maerula*), and 3 female Lyside Sulphurs (*Kricogonia lyside*, Fig. 32), one of which was ovipositing on *Guaiacum officinale*, representing a new foodplant record for Florida (see discussion below). After overstaying my welcome (I didn't notice the sign announcing the 4:00 pm closing time on my way in), I started the trip back to Homestead at about 4:40 pm, stopping only briefly at Long Key State Park, where no butterflies were seen.



Fig. 28. *Ephyiades brunnea floridensis*, male, FLORIDA: Monroe County: Big Pine Key, vic. Blue Hole, 14-V-2014.



Fig. 29. *Ephyiades brunnea floridensis*, female, FLORIDA: Monroe County: Big Pine Key, nature trail NW of Blue Hole, 14-V-2014.



Fig. 30. *Polygonus leo histrio*, male, FLORIDA: Monroe County: Key West Tropical Forest and Botanical Garden, Stock Island, 14-V-2014.



Fig. 31. *Asbolis capucinus*, male, FLORIDA: Monroe County: Key West Tropical Forest and Botanical Garden, Stock Island, 14-V-2014.

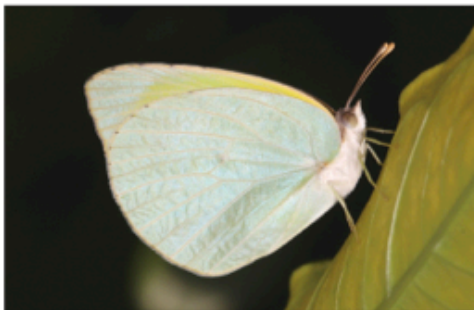


Fig. 32. *Kricogonia lyside*, female, FLORIDA: Monroe County: Key West Tropical Forest and Botanical Garden, Stock Island, 14-V-2014.



Fig. 33. *Dryas iulia largo*, male, FLORIDA: Miami-Dade County: Elliott Key, Biscayne National Park, 11-V-2014.



I woke up to a thunderstorm and noisy downpour on May 15<sup>th</sup>. Upon checking the weather, I realized that most, if not all of the day, would be rainy in the Homestead area, south through the Florida Keys. I therefore determined it was a good day to travel back to

Gainesville after five excellent days in the field. Surely, this was not my last trip to South Florida for butterflies, but I did come away feeling somewhat discouraged by the low numbers of butterflies seen in most areas, and the paucity of remaining habitats.



Fig. 34. *Strymon istapa modesta*, male, FLORIDA: Monroe County: Key West Tropical Forest and Botanical Garden, Stock Island, 14-V-2014.



Fig. 35. *Strymon istapa modesta*, female, FLORIDA: Miami-Dade County: Camp Owaissa Bauer, N of Homestead, 13-V-2014.

#### Annotated list of butterflies observed in South Florida, May 9-14, 2014

The following list summarizes the 39 butterfly species seen at each locality visited from May 9-14, with a few notes on taxonomy and ovipositions. Taxa preceded with an asterisk (\*) are considered to be South Florida specialty species; for the purposes of this note, these are species that are absent or very rare in the Gainesville, Florida area (north Florida), totaling about half (19 species) of the butterflies observed. Photos are provided for the majority of the South Florida specialty butterflies observed (Figs. 1-35). Taxonomy follows Pelham (2008) and/or Warren *et al.* (2014).

EK = Miami-Dade County: Elliott Key, Biscayne National Park, 9, 10, 11, 12 May.

CS = Miami-Dade County: Card Sound Rd., 1-10 mi SE Homestead, 12 May.

OB = Miami-Dade County: Camp Owaissa Bauer, N of Homestead, 13 May.

CH = Miami-Dade County: Castellow Hammock Park, NE of Homestead, 13 May.

NW = Miami-Dade County: Navy Wells Pineland Preserve, west of Homestead, 13 May.

MP = Miami-Dade County: Modello Wayside Park, N of Homestead, 13 May.

BP = Monroe County: Big Pine Key, Blue Hole and nature trails to NW, 14 May.

BG = Monroe County: Key West Tropical Forest and Botanical Garden, Stock Island, 14 May.

\**Phocides pigmalion okeechobee* (Worthington, 1881) Mangrove Skipper

EK9-11 (1-2 males observed each day, see Fig. 15), BG (1 female photographed, Fig. 16).

\**Polygonus leo histrio* Röber, 1925 Hammock Skipper

BG (3 individuals observed, 2 photographed, best is Fig. 30).

*Urbanus proteus proteus* (Linnaeus, 1758) Long-tailed Skipper

BG (4 males seen, 2 of which were photographed).

*Urbanus dorantes dorantes* (Stoll, 1790) Dorantes Longtail

BG (5 individuals seen, 1 mating pair photographed).

\**Ephyriades brunnea floridensis* E. Bell & W. Comstock, 1948 Florida Duskywing

BP (very common, several dozen males (Fig. 28) and females (Fig. 29) seen and photographed; several females observed ovipositing on larval foodplant *Brysonima lucida*); BG (about a dozen males and females seen).

*Pyrgus oileus* (Linnaeus, 1767) Tropical Checkered-skipper

OB (2 females seen, one photographed).

\**Cymaenes tripunctus tripunctus* (Herrich-Schäffer, 1865) Three-spotted Skipper

CH (4 individuals seen, 1 male and 2 females photographed, freshest female in Fig. 22), BG (1 seen).

*Hylephila phyleus phyleus* (Drury, 1773) Fiery Skipper  
BG (6 males seen).

*Polites baracoa baracoa* (Lucas, 1857) Baracoa Skipper  
OB (about 4 males seen on open areas, 1 photographed).

*Wallengrenia otho otho* (J. E. Smith, 1797) Southern Broken-dash  
BG (1 female seen and photographed).

\**Asbolis capucinus* (Lucas, 1857) Monk Skipper  
BG (about 8 males seen, 2 photographed, freshest is Fig. 31).

*Battus polydamas lucayus* (Rothschild & Jordan, 1906) Polydamas Swallowtail  
One seen from car near CH.

*Papilio polyxenes asterius* Stoll, 1782 Black Swallowtail  
MP (1 male seen).

*Heraclides cressphontes* (Cramer, 1777) Giant Swallowtail  
CH (1 fresh male seen), BG (1 or 2 individuals seen).

\**Heraclides aristodemus ponceanus* (Schaus, 1911) Schaus' Swallowtail  
EK9-11 (males fairly common, females scarce), 18 males captured, marked, photographed and released in 3 days, others seen and not captured; males vary from those with extensive red on the dorsal hindwing (Fig. 1), to just a trace of red (Fig. 2), to no red at all (Fig. 3); Fig. 4 shows a marked male ready for release.

\**Heraclides andraemon* Hübner, [1823] Bahamian Swallowtail  
EK9-11. This was the first swallowtail observed on Elliott Key on May 9<sup>th</sup>. On that day, 3 males and 5 females were seen; of those, 1 male and 3 females were netted - the male and 2 females were photographed. On May 10<sup>th</sup>, 2 males and 2 females were seen (1 male netted and photographed), and on May 11<sup>th</sup>, 1 male and 5 females were seen (2 females netted and photographed). Throughout the 1980's, Bahamian Swallowtails on Elliott Key were clearly referable to the Bahamian subspecies *H. a. bonhotei* (Sharpe, 1900), with narrower yellow wing bands and a darker overall ventral coloration, compared to other subspecies. The narrow-banded male figured by Minno & Emmel (1993) from Key Largo (personally examined) closely matches the 5 male specimens in the McGuire Center collection from Elliott Key, collected in 1988-1990. Recently, Cannon (2006) documented the Cuban subspecies *H. a. andraemon* on Big Pine Key; photographs of adults clearly show the characteristically wider yellow wing bands compared to typical *H. a. bonhotei*. Adults found on Elliott Key in 2014 are unusual in that males (Figs. 5-8) have wider bands than do typical males of *H. a. bonhotei* (Minno & Emmel 1993), considerably wider than the bands on males from Elliott Key from 1988-1990, but not as wide as those of *H. a. andraemon* documented on Big Pine Key by Cannon (2006). However, all 4 female *H. andraemon* photographed on Elliott Key in 2014 (Figs. 9-14) were comparatively narrow-banded, and are basically representative of *H. a. bonhotei*, save perhaps a somewhat yellower general ground color below. These 4 females do, though, have slightly wider bands than the single FEMALE specimen of *H. a. bonhotei* from Elliott Key in the McGuire Center collection, from 1988, which has very narrow bands. Other adults of *H. andraemon* seen but not netted on May 9-11 showed this same pattern, with comparatively wide-banded males, and narrow-banded females. The difference in band width always corresponded with the sex of the butterfly. The overall appearance of male *H. andraemon* on Elliott Key therefore appears to have changed somewhat since 1990, while the females remain more like typical *H. a. bonhotei*. It is unknown if this change in appearance is the result of intergradation with *H. a. andraemon* since 2006, or some other cause, but variation in *H. andraemon* on Elliott Key should be closely monitored in the future.

*Pterourus palamedes palamedes* (Drury, 1773) Palamedes Swallowtail  
CS (1 seen).

*Ascia monuste phileta* (Fabricius, 1775) Great Southern White  
EK12 (1 seen), 1 possibly seen from car north of NW.

\**Anteos maerula* (Fabricius, 1775) Yellow Angled-sulphur  
BG (1 male believed to be this species was seen in flight and observed for several minutes). As noted by Minno & Emmel (1993), it is unknown if this species is a regular breeding resident in Florida.

\**Phoebis agarithe maxima* (Neumogen, 1891) Large Orange Sulphur  
EK9,12 (1-2 males seen each day); OB (2 males seen, 1 photographed, Fig. 19), CH (about 4 males seen), MP (1 male seen), BP (2 males seen), BG (3 males, 1 female seen, female photographed).

*Phoebis philea philea* (Linnaeus, 1763) Orange-barred Sulphur  
BG (3 males seen in flight).

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- \**Aphrissa statira floridensis* (Neumoegen, 1891) Statira Sulphur  
MP (2 males seen at flowers, one photographed, Fig. 27).
- \**Aphrissa neleis* (Boisduval, 1836) Pink-spot Sulphur  
MP (4 males and 1 female seen, most or all were photographed; ventral male in Fig. 26, and first known dorsal photo of living male in Fig. 25). Many large *Lysiloma sabicu* trees grow in Modello Park, and this species appears to be a breeding resident there.
- \**Kricogonia lyside* (Godart, 1819) Lyside Sulphur  
BG (3 females seen and photographed, best in Fig. 32). One female was observed repeatedly ovipositing on Cuban Lignum Vitae (*Guaiacum officinale*); fortunately the plant had a name panel posted immediately below where the butterfly was ovipositing. According to Salvato *et al.* (2006), this represents a new larval foodplant record for Florida.
- Eurema daira daira* (Godart, 1819) Barred Yellow  
EK9 (1 male seen), EK12 (1 male seen), CS (3 individuals seen), NW (4 seen, 1 mating pair photographed), BG (1 female seen).
- \**Pyrisitia dina helios* (M. Bates, 1934) Dina Yellow  
OB (5 males and 3 females seen, 1 male (Fig. 17) and 1 female (Fig. 18) photographed), CH (1 male seen within hammock, 1 male seen along SW 157<sup>th</sup> Ave, on the east side of the park).
- Nathalis iole iole* Boisduval, 1836 Dainty Sulphur  
EK9 (1 male seen), EK12 (1 male seen), CS (2 males seen), OB (4-5 seen on lawn near entrance to camp).
- \**Electrostrymon angelia angelia* (Hewitson, 1874) Fulvous Hairstreak  
CH (4 males and 1 female seen and most were photographed, the freshest male in Fig. 20 and the female in Fig. 21); BG (2 females seen, 1 photographed).
- \**Strymon istapa modesta* (Maynard, 1873) Mallow Scrub-hairstreak  
OB (1 male and 1 female seen, the female photographed (Fig. 35); BG (1 male seen and photographed, Fig. 34).
- Leptotes cassius theonius* (Lucas, 1857) Cassius Blue  
EK9-12 (many individuals seen each day), OB (about 8 seen), CH (about 8 seen, 1 male photographed), MP (1 female seen and photographed), BP (about 2 dozen adults seen around Blue Hole), BG (over 2 dozen adults seen, 1 mating pair photographed). This was the most abundant and widespread butterfly observed during the week.
- Hemiargus ceraunus antibubastus* Hübner, [1818] Ceraunus Blue  
OB (about 4 males and 3 females seen, mainly on lawn near camp entrance).
- Danaus plexippus plexippus* (Linnaeus, 1758) Monarch  
BG (3 seen, remained in garden all afternoon).
- Agraulis vanillae nigrior* Michener, 1942 Gulf Fritillary  
CS (1 seen), OB (3 seen), CH (2 seen), NW (1 seen), BG (8 seen).
- \**Dryas iulia largo* Clench, 1975 Julia  
EK9-11 (1 to 2 dozen adults seen each day, 1 male photographed on May 11<sup>th</sup>, Fig. 33), OB (1 female seen).
- Heliconius charithonia tuckeri* W. Comstock & F. Brown, 1950 Zebra Longwing  
EK9 (2 males seen), OB (3 seen), CH (15 seen), BG (10 seen).
- \**Eunica tatila tatilista* Kaye, 1926 Florida Purplewing  
EK10 (1 seen from a distance).
- \**Marpesia petreus* (Cramer, 1776) (Northern segregate) Ruddy Daggerwing  
OB (2 females seen and photographed), CH (1 female photographed, Figs. 23-24).
- Anartia jatrophae guantanamo* Munroe, 1942 White Peacock  
CS (4 seen), OB (8 seen, mainly flying over the lawn), CH (1 seen).
- \**Junonia genoveva* (Cramer, 1780) (Caribbean segregate) Mangrove Buckeye  
EK9-11 (2-3 males seen each day).

#### Acknowledgements

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