Second addendum to the Sphingidae of Louisiana

by

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In a review of the more recent sphingidae acquisitions of the Louisiana State Arthropod Museum (LSAM), I noted two specimens in particular needing documentation. The first is an adult male specimen of *Eumorpha satellitia* (Linnaeus) (Fig. 1a) captured March 24, 2001, lat./long. coordinates 30°47'N 91°15W, West Feliciana Parish, Louisiana, collector R.F. Souther. Fresh specimens of *satellitia* often have a pale greenish cast, and those occurring at the type locality Jamaica exhibit a stronger green coloration than mainland populations. This greenish cast of *satellitia* fades over time to brown. I have illustrated in Fig.1, two other similar species of the genus *Eumorpha* occurring in Louisiana from the Abita Springs Study Site* (*Abita Springs Study site: sec. 24,T6S, R12E, 4.2 miles northeast of Abita Springs, Louisiana.): *Eumorpha pandorus* (Hübner) and *Eumorpha intermedia* (Clark) which were confused with *satellitia* in literature for numerous decades and still can be confused today. *Eumorpha satellitia* was first reported for Louisiana by Ottolengui (1894) as *Philampelus licaon* (Cramer). Later, (Clark, 1917) described *Pholus satellitia intermedia*, type locality: Baton Rouge, Louisiana. In 1971, Hodges incorrectly synonymized *intermedia* under *E. pandorus* (Hübner). In 1980, Brou proved *intermedia* was not a subspecies of *satellitia* nor a synonym of *pandorus*, but a valid distinct species based on numerous attributes, including unique genitalia. Subsequently, Hodges (pers. comm.) indicated he had not actually seen *intermedia* at the time he synonymized it with *pandorus*.

In (Brou, 1997), I surmized that Ottolengui's 1894 record of *licaon* (= *satellitia*) was more likely the

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* Fig. 1. a. *Eumorpha satellitia* male, b. *Eumorpha pandorus* male, c. *Aellopus clavipes* female. d. *Eumorpha intermedia* male, and pinkish-colored ventral wing surface.
similar looking brown and olive-green colored *intermedia*, a Louisiana species, unknown in 1894 would be described 23 years later by Clark as a subspecies of *satellitia*. This West Feliciana Parish specimen (Fig. 1a) captured in 2001 confirms the presence of *satellitia* in Louisiana. The distal edge of the large median patch near the inner margin of the dorsal side of the forewings of the three *Eumorpha* species illustrated in Fig. 1, are often diagnostic in distinguishing the three species, concave in *satellitia*, convex in *intermedia*, and somewhat straight in *pandorus*.

The second specimen of note is a female of *Aellopos clavipes* (Rothschild and Jordan) (Fig. 1d), taken Aug. 05,1999 on Mobile Oil's Green Canyon 18-A platform in the Gulf of Mexico off the coast of Louisiana (Fig. 2), lat./long. coordinates 27°56'37", 91°01'45" collector Marshall Iliff. This platform was originally installed in 1986 and stands in water depth of 750 feet. This isolated platform is approximately 97 miles from the nearest shoreline. Fig 2 illustrates the location of this platform in the coastal waters midway along the state. Obviously a subject of future conjecture, I consider this a new Louisiana state record. This specimen is the one of 19 specimens of seven species of sphingidae listed by (Russell, 2005), as part of nearly 15,000 insects captured on oil and gas platforms in the northern Gulf of Mexico. This particular specimen was incorrectly identified in that report as *Aellopos titan* (Cramer). In the early 1970s, I identified a specimen of *clavipes* from in the collection of the LSAM captured at Bay St. Louis, Mississippi (get photo LSAM). Within the United States, adults of *clavipes* have been captured more commonly in southern Texas, and occasionally in southern Arizona, single specimens are known for Louisiana and Mississippi. Two other species of the genus: *Aellopos fadus* (Cram.) and *Aellopos titan* (Cram.) were first reported for Louisiana by von Reizenstein (1863), but have yet to be taken since.

Other noteworthy sphingidae records for Louisiana include a female specimen of *Pseudosphinx tetrio* taken on October 31, 2010, the third specimen taken at the Abita Springs study site, and a fresh female *Eumorpha achemon* (Drury) taken in 2010, the first taken at the Abita Springs study site in 28 consecutive years of light trapping at this location. Previously, *achemon* was only known in Louisiana from Natchitoches Parish in northwest part of the state. In Fig. 3, I illustrate phenotype variations of *Lapara phaeobrachycerous* Brou and in Fig. 4 and Fig. 5 of *Lapara coniferarum* (J.E.Smith) from the Abita Springs study site. *L. phaeobrachycerous* is still seldom collected anywhere in the southeastern U.S.since its description in 1994. Since Hurricane Katrina in 2005, both species of *Lapara* have become much scarcer at the Abita Springs study site, no doubt due to the tremendous loss of the mature pine forest as similarly occurred all along the Gulf Coastal States. These two species of *Lapara* are often mistakenly confused by lepidopterists and these images should aid in distinguishing the two entities. More often *phaeobrachycerous* exhibits one prominent postcellular dash of black scales on the forewings, unlike *coniferarum* which more often has two dashes.

Following the initial 26-year Sphingidae of Louisiana study (Brou and Brou, 1997), published a four year addendum (Brou and Brou, 2002). No further daily cataloguing of Louisiana Sphingidae continued beyond those 30 consecutive years, though collecting has continued to present day.

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**Fig. 2.** Pictorial illustrating location of Offshore oil Platform GC-18.

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Side note: Rodrigues Ottolengui (March 15, 1861 - July 11, 1937) was an American writer and dentist born in Charleston, South Carolina. In 1877 he moved to New York, where he would spend most of his adult life. A dental pioneer, Ottolengui was one of the first to use X-rays and was a specialist in orthodontics and root canal therapy. He was also interested in entomology, taxidermy, and photography. (Wikipedia, 2011)
Fig. 3. Phenotype variations of *Lapara phaeobrachycerous* males (a-f), females (g-m).
Fig. 4. Phenotype variations of *Lapara coniferarum* females (a-f), males (g-h).


**Fig. 5.** Phenotype variations of *Lapara coniferarum* males (a-f).