

PERIODIC OCCURRENCE OF *URANIA FULGENS* (URANIIDAE)
IN THE UNITED STATES¹

In a recent literature search I came across a one-page article by Leussler (1918, Entomol. News 29:149) titled, "Interesting butterfly occurrences at Beeville, Texas." The first species listed is, "*Cydimon poeyi* Gundlach—One specimen of this tropical swallowtail was captured by Miss Pattie Hutchinson at Beeville, June 17, 1916." Leussler cited Felder & Felder [1864-1875, Reise der Osterreichischen Fregatte Novara um die Erde in den Jahren 1857-1859. Zool. Theil 2 (7)], as giving an illustration of the species which Miss Hutchinson had collected.

Confusion resulted from Leussler's report, first from the term "butterfly," and second from incorrect nomenclature. The oldest valid generic name (D. C. Ferguson, pers. com.) is *Urania* Fabricius, 1807, not *Cydimon* Dalman, 1824. The nomenclature was further confused by the use of the species name *poeyi* Gundlach, of Cuban origin, and superficially close to *fulgens* according to Gaede [1930, in Seitz, The Macrolepidoptera of the World, 6:820-831 (*Urania*). Alfred Kern Verlag, Stuttgart], and only doubtfully distinct (D. C. Ferguson, pers. com.). Thus, what Miss Hutchinson actually caught was *Urania fulgens* Walker.

The purpose of this paper is not to make or propose taxonomic changes, but rather to present the true identity of the specimen recorded by Leussler, and to document other occurrences of the species within the United States. The specimen which Miss Hutchinson captured (Fig. 1) is now in the USNMNH together with two other examples from Texas, one of which is illustrated (Fig. 2). Interestingly, McDunnough [1938, Mem. So. Calif. Acad. Sci. 1 (1)] did not include this genus or species in his check list, possibly because Leussler's report of 20 years earlier had not come to his attention.

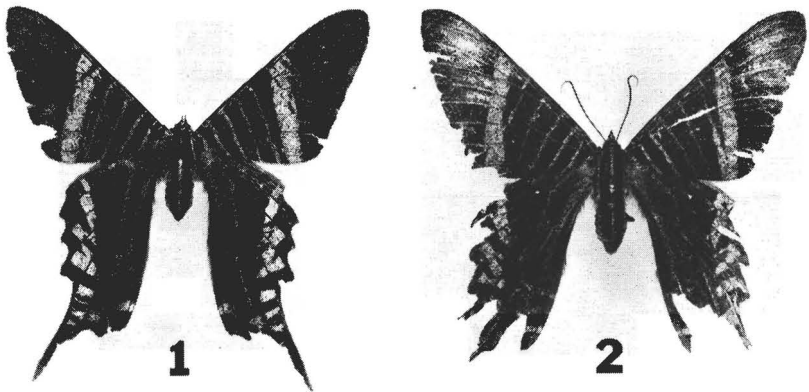
Of the 10 examples of this species collected in the United States over the past 60 years, all except one are from Texas. A migration of this species in Texas also is recorded. Perhaps there are other existing examples in collections just waiting to be brought to light. Data on the known examples follow:

FLORIDA: 1 ♂, worn, 9 September 1973, Fort Walton Beach, Okaloosa Co., V. J. Farkas (Emmel & Farkas 1974, J. Lepid. Soc. 28:292) (in Kendall collection). TEXAS: 1 ♀, worn, 17 June 1916, Beeville, Bee Co., Miss Pattie Hutchinson (Leussler 1918, cited above) first U.S. record; 1 ♀, worn, 8 April 1941, Lancaster, Dallas Co., Mickey Lemmon; 1 ♀, worn, 11 April 1941, Lancaster, Dallas Co., H. A. Freeman (these 3 specimens in the USNMNH); 1 ♂, worn, 6 April 1941, nr. San Antonio, Bexar Co., C. O. Neumann (in Kendall collection, ex coll. A. E. Brower); 1 ♀, worn, 27 December 1955, College Station, Brazos Co., no coll. label (in Texas A&M Univ. collection); 1 ♀, worn, 5 September 1971, George West, Live Oak Co., John E. Hafernik, Jr., and in his collection; 1 ♀ ♂, in sealed mount, W. W. White Elementary School, San Antonio, Bexar Co. (a recent inquiry disclosed the specimen no longer exists); 2, sex undetermined, 1 in good condition, the other fair, July 1939, San Benito, Cameron Co., Jack B. Prentiss (given to his high school; recent inquiry discloses they no longer exist).

Gaede (1930, cited above) gave brief descriptions of the larva and pupa for *U. leilus*, but made no mention of a larval foodplant. Beutelspacher (1972, J. Lepid. Soc. 36:133-137) found a cocoon of *U. fulgens* in Mexico among the leaves of an epiphytic bromeliad growing on the trunk of a coconut palm. Smithsonian Institution Research Reports No. 7, Winter 1974, and Neal G. Smith (pers. com.) confirm *Omphalea diandra* L., Euphorbiaceae, as a larval foodplant for *U. fulgens*; this is a difficult plant to find because of its climbing habit and foliage production high in the forest canopy.

Although little has been published on the life history of the uraniids, much has

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Figs. 1-2. *Urania fulgens*, females. 1, first United States record, Beeville, Bee Co., Texas, 17 June 1916, *leg.* Pattie Hutchinson. 2, Lancaster, Dallas Co., Texas, H. A. Freeman, 8 April 1941, *leg.* Mickey Lemmon.

been published on the migratory habits of these moths. Gaede (1930, cited above) gave general migratory habits of the genus, but indicated that they do not reach the United States; no doubt Leussler's report had not come to his attention. Williams (1937, *Nat. Geog. Mag.* 71:568-585) gave Mexico, Nicaragua, Costa Rica, and south to Ecuador as the migratory area. Valerio G. (1966, *Univ. Costa Rica journal, Cratera* 1:40-45) gave the period, magnitude, direction, and speed of flight, and mentioned an attraction to shiny objects. He indicated also that *U. fulgens* migrated in Veracruz, Mexico; Atlantic coast of Honduras, Rivas isthmus of Nicaragua, Panama, and Bogota area of Colombia. He speculated that the larvae may feed on tree-top foliage, thus avoiding detection by collectors. Young (1970, *J. N. Y. Entomol. Soc.* 78:60-70) documented the daily flight activities of *U. fulgens* in Costa Rica where an observed migration lasted 42 days; the life expectancy was estimated to be 28 days for males and 34 days for females. Smith (1972, *Carib. J. Sci.* 12:45-58) documented the population fluctuations and migrations of *Urania* moths in lower Central America, the Lesser Antilles, and in northern South America since 1868. He found no clear cut periodicity of movement, but the most frequent interval was 8 years.

In July 1939 at San Benito, Cameron Co., Texas, Jack B. Prentiss observed a migration of *U. fulgens* during the morning hours, in a pasture behind his home. In personal communication he stated, "The flight was rather extensive; there were always a few in sight for the better part of 4 hours. They were all flying in a due north direction. During the height of the flight they were rather numerous; 20 to 30 could be seen at one time. Most were flying too high to be netted and all were flying fast. Those flying low were most elusive and one had but a single chance to net them. During the course of the flight I did manage to take 2 specimens; one was in extremely good condition, the other only fair. Both specimens were placed in the high school collection. I have since checked to see if they were still there but found they have long since been discarded."

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A PARTIALLY ALBINIC ABERRATION OF *PHYCIODES THAROS* (NYMPHALIDAE)

On 25 July 1977, I took a partially albinic male aberration of *Phyciodes tharos* Drury (Fig. 1) in Upper Tyrone Township, Fayette Co., Pennsylvania, at an elevation of 1100 ft (335 m). All the normally tawny or brown coloration characteristic of this species was replaced by an extremely pale, orange-tinged cream color. The black markings were not affected. I know of no similar specimens. The aberration has been deposited in the collection of the Peabody Museum of Natural History, Yale University, New Haven, Connecticut.

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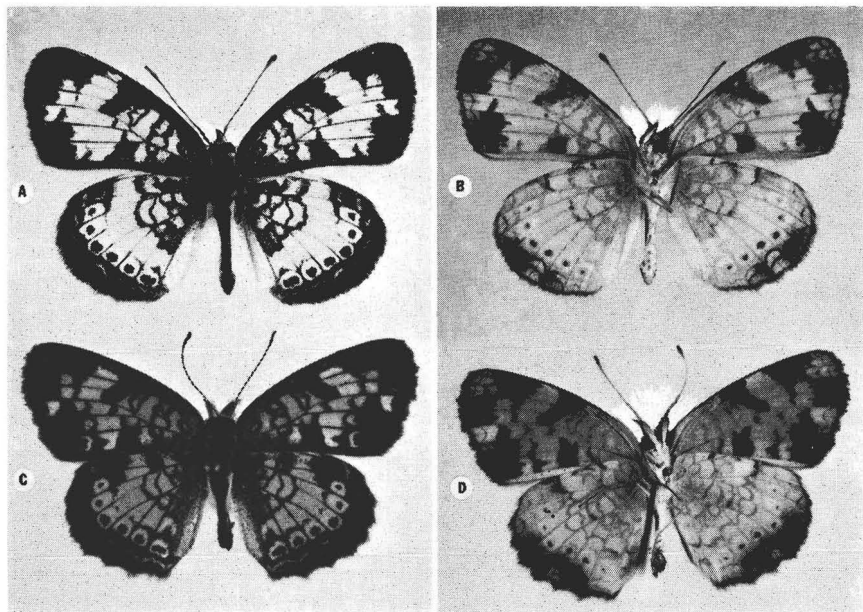


Fig. 1. *Phyciodes tharos* Drury: A., B. pale (partially albinic) male aberration, dorsal and ventral sides; C., D. typical male from same locality, dorsal and ventral.