

## Notes on Some Tropical American Skippers (Lepidoptera, Rhopalocera, Hesperidae)

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We lack accurate data on the distribution of tropical butterflies in the United States, and even in Mexico and Central America. Several factors contribute to this condition: (a) the value of spot-localities was not recognized by early collectors; (b) it was not expected that other collectors at a later date would be interested in *type-locality* collecting; (c) as professional collectors the earlier students sought to keep secret their exact localities. Probably the early students did not even imagine how the problem of distribution of species would engross modern ecologists, nor the possibilities of there being endemic species with a restricted range.

Some of the species in current check lists are unconfirmed for given localities, in the absolute lack of museum specimens. As an example, both species, *Phocides lilea* (Reakirt) and *P. urania* (Westwood & Hewitson), have been reported from Texas. I have searched carefully on both sides of the Rio Grande for these species and have examined several collections of butterflies made in south Texas and northern Mexico, without finding a single specimen. One recalls that the south Texas flora has changed greatly since these species were reported to have been collected in that region; the flora of northern Mexico, however, has not changed as much.

After careful study of the literature on Texan hesperids, I wish to furnish some exact localities for some of our more unusual Southern species. The range of 16 species, either collected or observed by myself, are plotted on maps. These are numbered to correspond with the number of the species as given in this paper. On the maps, a dot represents the locality where one or more individuals of a given species were collected. Discussion of these sixteen species follows.

1. *Urbanus doryssus* (Swainson).—Apparently not common, even though it is distributed over a large area. I caught

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a male near Victoria, Mexico, in June, 1935. No specimens were observed in Mexico during June, July and August, 1936. On October 10, 1944, I saw an individual feeding on papaya blossoms in Pharr, Texas. I caught a male close to Pharr, on March 10, 1945; and next day took another male at the same locality. There were no flowers in the area. The skippers darted about in a clearing, then rested for a brief period on the branches of a small shrub.

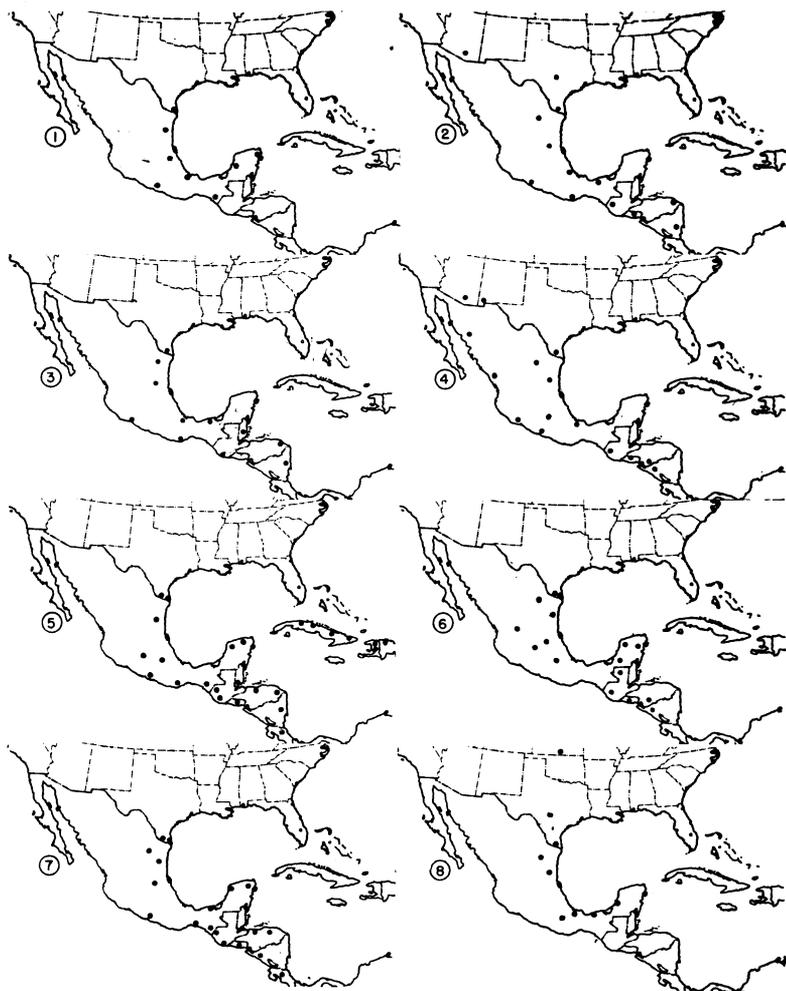
2. *Chioides zilpa* (Butler).—Previous records show this species at Kerrville, Texas, during September; and Pata-gonia Mountains, Arizona, during May. It occurs rather generally over Mexico on down to South America; but North American records are scanty. I collected (though not commonly) individuals of this species from cultivated zinnias at Pharr, Texas, in 1944, 1945 and 1947 (2 males and 1 female, Sept. 24, 1944; 1 female, Oct. 1, 1945; and 1 female, Sept. 19, 1947).

3. *Astraptus anaphus* (Cramer).—This tropical American species seems to be most abundant in the low jungle areas of South America. It is common in parts of Central America and southern Mexico, becoming more scarce in northern Mexico. Only once has it been found within the bounds of the United States, when, on Sept. 9, 1944, I took a fresh female feeding on jasmine blossoms, at Pharr, Texas.

4. *Proteides mercurius* (Fabricius).—While this rather large skipper is fairly abundant south of the Rio Grande, records of its occurrence within the bounds of this country are meager. According to Lindsey, Bell, & Williams (*Hesperioidea of North America*), *P. mercurius* occurs from Texas, New Mexico and Arizona, and southward to Paraguay. My only specimen from the United States is a male taken ten miles south of Pharr, Texas, April 25, 1948.

5. *Cabares potrillo* (Lucas).—Common in some sections of Mexico and Central America. I collected several at Monterrey and Victoria in 1935 and 1936. Previous records of this species gave it as 'occasionally taken in Texas in May.' I found several individuals of this species at Pharr, Texas; and at La Reforma Ranch (10 miles south of Pharr), took several *C. potrillo* in November 1947 and March 1948. Several specimens were collected from bachelor buttons (*Gomphrena globosa* L.) at Pharr in October, 1946.

6. *Cogia calchas* (Herrich-Schaeffer).—A common tropi-



cal American species found over most of northern South America, all of Central America and several states of Mexico. It appears that the northernmost range of this species (based on previous records) is in the Pharr-Brownsville area of Texas, where I got 9 specimens at Brownsville, June 5-9, 1940. Several were collected at Pharr and Hidalgo during the years 1944-48. The main flight appears to be in May and June and again September and October.

7. *Spathilepia clonius* (Cramer).—Common in hot regions of Central and South America and in the Gulf Coastal area

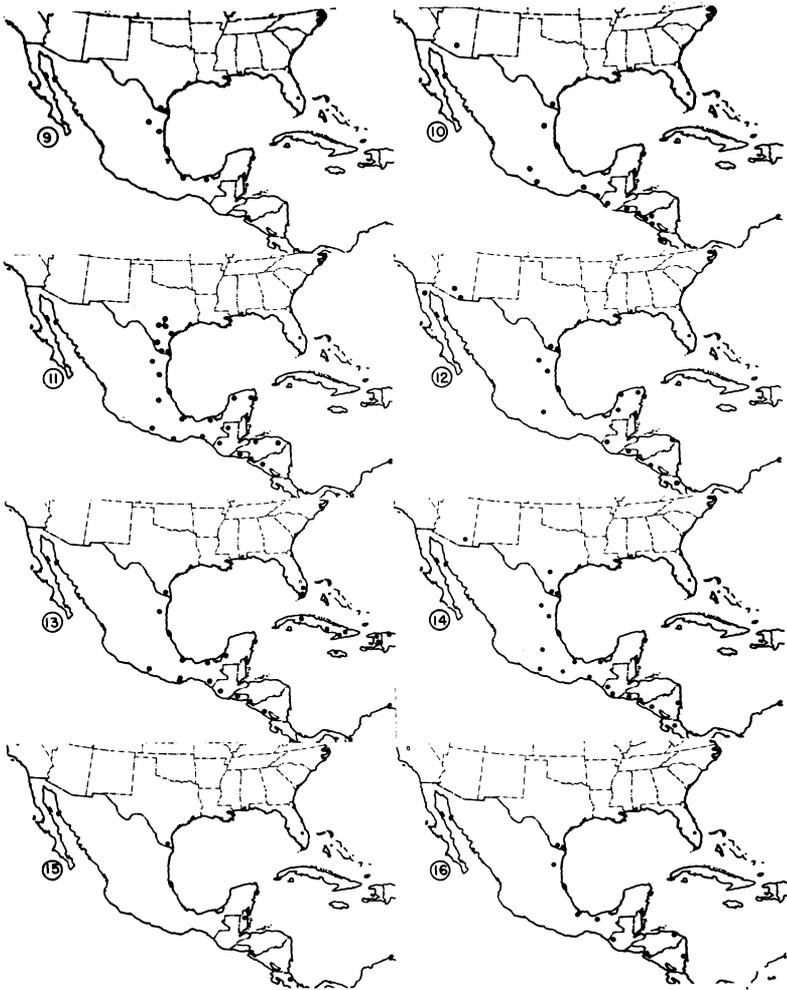
of Mexico. It occurs less abundantly on the Pacific side of Mexico. I recorded the capture of a male individual of this species, at Pharr (April, 1945); since then, several more specimens have been taken. On May 28, 1947, two males were caught at Brownsville. I took three males and two females just south of Pharr, Nov. 2, 1947, and five days later, one male and one female at the same locality. I am inclined to believe that this species is native to the lower Rio Grande valley of Texas, having perhaps been overlooked by early collectors.

8. *Grais stigmaticus* (Mabille).—We have few data on the distribution of this species in the United States. Previous records list Kerrville, Texas, September; and Sumner Co., Kansas, October. The Kansas records are from specimens collected by Stallings & Turner (which individuals were probably windblown ones.). On Aug. 20, 1944, I took nine males between Pharr and Hidalgo, flying around ebony-tree blossoms in a roadside park. During August and September, 1945, I took several specimens in a flower garden in Pharr.

9. *Timochares ruptifasciatus* (Ploetz).—While this species never occurs very commonly anywhere, it appears to be fairly well distributed from southern Texas to South America. Previous records include Brownsville (and very doubtful records from southwestern Arizona and southeastern California). I have taken specimens at Brownsville, and several at Pharr during the months of August to October, 1944-47.

10. *Pyrgus domicella* (Erichson).—This species does not appear to be common. I collected two specimens at Monterey and one at Victoria, Mexico, during June, 1935. The only record I could find in the literature for the United States was 'Tucson, Arizona, August and September.' I took a male at Pharr (November 4, 1944); and two males and a female were taken at the same locality, during October and November, 1947.

11. *Pholisora mazans* (Reakirt).—One of the most abundant skippers in the American tropics. This species was long confused in southern Texas with *Pholisora hayhurstii* (Edwards), a common United States skipper. In the area around Dallas only *hayhurstii* occurs; around San Antonio both *mazans* and *hayhurstii* occur; and at Brownsville,



Pharr, and Laredo only *mazans* occurs. I have specimens of *mazans* from Corpus Christi, San Antonio, New Braunfels, San Marcos, Laredo, Brownsville and Pharr. It is abundant along the Rio Grande from Pharr to Brownsville.

12. *Chiomara asychis* (Cramer).—This species is well distributed over the American tropics. Previous records state that the species has been 'collected in Texas and Arizona during April, May and October,' but fail to give exact locality. From 1944 to 1948 I collected several individuals at Brownsville, Pharr and near McAllen, Texas. The main

period of flight is during September, October and November. Apparently this species is native to the lower Rio Grande area of Texas.

13. *Calpododes sylvicola* (Herrich-Schaeffer).—Well-distributed throughout the American tropics, Cuba, and the surrounding islands, but rarely in large numbers. The species has been previously recorded from Florida and Texas (September), but definite localities were not given. I took (Sept. 16, 1944) 3 males and 1 female at Pharr, Texas; and a month later (Oct. 15, 1944), three more males at the same place. I collected (Oct. 12, 1946) eight males and one female between the towns of Pharr and McAllen. This species appears well established around Pharr. It has only a single brood each year, which comes out in September, and remains on the wing until late November.

14. *Calpododes nyctelius* (Latreille).—This species has been recorded from southern Texas to South America. Although it is well distributed, it appears never to be common in any given locality. My only specimens were collected at Pharr during September and October, 1944-47. This is another species that appears on the wing for only a short time. In tropical and subtropical areas, most butterflies that fly during September and October have a second brood appearing in April and May; but this does not hold true with most members of the genus *Calpododes* in Texas.

15. *Calpododes evansi* Freeman.—Since I described this species (*Entom. News*, LVII, no. 8, Oct., 1946), two more specimens have been collected. I took a male just south of Pharr (Oct. 12, 1946) and a female at the same locality (Nov. 2, 1947). These collections bring the total number of known specimens to six—four males and two females. The wide spread from British Honduras and Costa Rica to Pharr, Texas, shows considerable distribution; the small number of known specimens shows lack of thorough collecting along the Gulf Coastal area in Mexico. Perhaps more widespread collecting in southern Central America and northern South America will show an even wider range for this species than is now known.

16. *Lerodea edata* (Ploetz).—A small skipper, with a very extensive range extending from Texas, through Mexico, Central America, to Paraguay in South America. It also occurs on the island of Trinidad. Although its range is

restricted in the United States to the small area from Pharr to Brownsville, it is abundant there at times. I have collected over a hundred specimens in the Pharr-Brownsville region, during the months of March to May and August to December, 1944-47. Apparently *Lerodea edata* is native to that region. Because of its small size and secluded habits, it doubtless had been overlooked by collectors before 1944.

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## Transfer of Texas Species of *Petalostemum* to *Dalea* (Leguminosae)

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The genus *Dalea* (*Leguminosae-Psoraleae*) is usually characterized as having 10 stamens, while *Petalostemum*<sup>2</sup> has only 5. In Rydberg's comprehensive account (*N. Amer. Flora* 24, parts 1-2, 1919-1920), the two genera are distinguished as follows (p. 2) :

Wings and keel-petals distinctly clawed, inserted some distance below the mouth of the staminal tube, the keel-petals (if present) inserted higher up than the wings, the former usually united along the lower edge of the blades. DALEA.<sup>3</sup>

Wings and keel-petals alike, clawless or short-clawed, all distinct and inserted at the mouth of the staminal tube; spikes dense, with persistent bracts. PETALOSTEMON.

In a careful synopsis of *Dalea* and related genera in the Sonoran Desert by Wiggins, a similar separation is made (*Contrib. Dudley Herb.* 3: 43, 1940) :

Corolla distinctly papilionaceous; wing- and keel-petals inserted between the base and the middle of the staminal tube; claws one-fourth to one-half as long as the blades. DALEA.

Corolla faintly or not at all papilionaceous; wing- and keel-petals inserted at the mouth of the staminal tube, short-clawed. PETALOSTEMON.

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<sup>2</sup>In the list of *nomina conservanda* making up Appendix III of the International Rules of Botanical Nomenclature (*cf. Brittonia* 6: 67, 1947), this is altered to the etymologically proper form of *Petalostemon* — in flagrant violation of Article 59 of the same Rules, expressly forbidding such corrections!

<sup>3</sup>Rydberg used the name *Parosela* Cav. (1802), the name *Dalea* having been used several times prior to the publication of Jussieu's genus of that name in 1789. *Dalea* Jussieu has since been placed in the list of *nomina conservanda*, and must now be used instead of *Parosela*.