Scientific Note: First host plant record for the Cuban endemic Holguin Skipper *Holguinia holguin* Evans, 1955 (Lepidoptera: Hesperiidae: Hesperiinae)

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The monotypic genus *Holguinia* Evans, 1955 is the only butterfly genus endemic to Cuba, and its unique species, *H. holguin* Evans, 1955 remains as one of Cuba's least-known butterflies (Alayo & Hernández, 1987; Smith *et al.*, 1994; Fernández *et al.*, 2020). Apparently very rare and currently considered Endangered (Núñez & Barro, 2016), this elusive insect has been located in the foothills of Sierra Maestra, eastern Cuba (Alayo & Hernández, 1987), at the base of the "mogotes" at Viñales, western Cuba (Fontenla, 1987), and throughout the Nipe-Sagua-Baracoa mountain range, also at eastern Cuba (Álvarez *et al.*, 2023), with no known records from the center of the island. The butterfly is morphologically and genetically distinct from other hesperine skippers, and DNA data suggests that it belongs to the subtribe Hesperiina (tribe Hesperiini), forming a well-defined, old and isolated lineage unrelated to other Greater Antilles genera (Núñez *et al.*, 2020). Besides its preference for gallery forest, the "mogote" vegetation complex and serpentine scrub-woodlands, very little is known about its biology and its life history remains a mystery (Fernández *et al.*, 2020).

On 14 May 2023, a female *Holguinia holguin* was observed and photographed while ovipositing on fresh leaves of a climbing grass in the foothills of Alto de Florida, Baracoa, Guantánamo province (20°18'03.04"N, 74°29'54.54"W) (Fig. 1A). The location consisted of a dry serpentine-scrub woodland on the southern slope of a small hill nearly 50 m above sea level and approximately 150 m north of Río Miel (Fig. 1C). The *Holguinia* female was accompanied in this highly diverse and endemic-rich habitat by the endemic skipper *Oarisma bruneri*

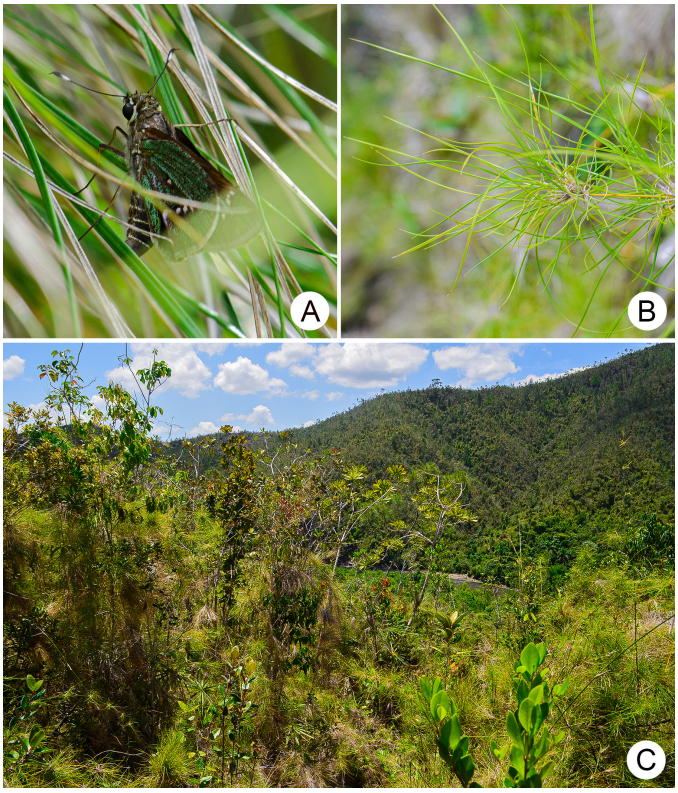

Figure 1. *Holguinia holguin* Evans, 1955 (Lepidoptera: Hesperiidae: Hesperiinae), its host plant and habitat at Alto de Florida, Baracoa, Guantánamo, on 14 May 2023. **A**: Female *H. holguin* ovipositing on *Tibisia farcta* (Aubl.) C. D. Tyrrell & L. G. Clark (*Poaceae*). **B**: Culm of *T. farcta*. **C**: Dry serpentine scrub-woodland of Alto de Florida, Baracoa, Guantánamo. Note the dominance of *T. farcta* in the vegetation. Photographs © Yosiel Álvarez.

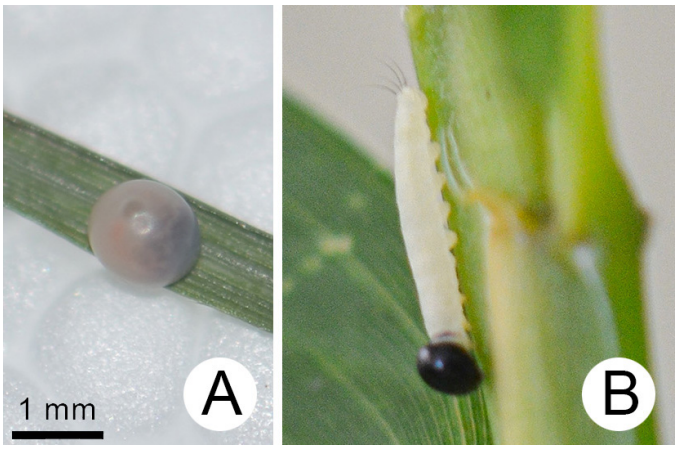

Figure 2. Immature stages of *Holguinia holguin* Evans, 1955 (Lepidoptera: Hesperiidae: Hesperiinae) collected at Alto de Florida, Baracoa, Guantánamo, on May 14, 2023. **A**: Egg before hatch. **B**: First instar larva. Photographs © Yosiel Álvarez.

Bell, 1959, *Parachoranthus magdalia* (Herrich-Schäffer, 1863) (Hesperiidae), *Pyrisitia proterpia* (Fabricius, 1775) (Pieridae) and the endemic taxa *Calisto bruneri* Michener, 1949, *Calisto lastrai* Núñez, 2019 (previously unrecorded from Baracoa) (Nymphalidae) and *Urania fulgens poeyi* (Herrich-Schäffer, 1866) (Uraniidae). The grass was later identified as the climbing bamboo *Tibisia farcta* (Aubl.) C. D. Tyrrell & L. G. Clark (Poaceae), by Dr. Eldis Bécquer and Dr. José Luis Gómez (Fig. 1B). An egg laid by the female was collected; it was 1.2 mm in width and cream white in color, turning darker before hatching (Fig. 2A). The larva hatched seven days after the egg was laid, but the lack of equipment and further unavailability of leaves of *T. farcta* prevented complete rearing and description of immature stages. The first instar larva measured 2.8 mm long with a head capsule width of 0.8 mm. The body is cream-beige in color with black head and prothoracic shield, and four black setae emerging from the anal plate (Fig. 2B).

This constitutes the first host plant record for *Holguinia holguin*. The grass *T. farcta*, previously known as *Arthrostylidium capillifolium* Grisebach and commonly known as "tibisí", is widespread in serpentine and karstic locations throughout Cuba, and the Nipe-Sagua-Baracoa mountains are home to the two other members of the genus *Tibisia*, which are regional endemics restricted to serpentine soils (Catasús, 1987; Tyrrell *et al*., 2018). This plant's distribution could explain the apparently broad distribution of *Holguinia* across this mountain range in both serpentine and karstic habitats (Álvarez *et al*., 2023). The larva did not accept leaves from another climbing bamboo species and it is possible that it may only utilize *T. farcta* as a host plant. The distribution of *Holguinia* may reflect that of *T. farcta*, given that the plant inhabits the other known locations in which the butterfly is found. Given the threatened status of *Holguinia holguin*, further field work is necessary to provide a better picture of the current distribution of the species in Cuba and to obtain additional information about its life cycle and immature stages.

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