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First Record of the Previously Considered Hispaniolan Endemic Monotypic Genus *Archimestra* Munroe, 1949 (Lepidoptera: Nymphalidae: Biblidinae) from Cuba

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Abstract—**The presence of *Archimestra teleboas* (Ménétriés, 1832) (Lepidoptera: Nymphalidae) in Cuba is recorded for the first time, based on individuals observed and collected near Maisí, Guantánamo province, eastern Cuba, on January 29, 2025. This constitutes the first record of the genus and species outside of Hispaniola, where it was believed to be endemic. The possible causes and implications of this discovery are discussed.**

The monotypic butterfly genus *Archimestra* Munroe, 1949 has up until now been thought to be endemic to Hispaniola, and represents one of the most fascinating elements of the Greater Antilles butterfly fauna. Believed to have its closest relatives in Africa, *Archimestra teleboas* (Ménétriés, 1832) is widespread on Hispaniola, albeit absent from the eastern side of the Dominican Republic, as well as from the Tiburón peninsula of Haiti (Miller and Miller 1989; Smith et al. 1994; Pérez-Asso et al. 2017). The butterfly has a wide ecological distribution as well, being present from sea level to moderate elevations, and from dry, xeric lowland scrubs to moist montane forests and disturbed areas (Smith et al. 1994). Despite being widespread and usually abundant, its distribution can be irregular and it may be absent from apparently suitable localities; its larvae have been reared on species of *Tragia* L. (Euphorbiaceae), although its immature stages remain undescribed nowadays (Pérez-Asso et al. 2017). Besides several reports from Île de la Gonâve (Schwartz 1989; Smith et al. 1994; iNaturalist 2025), this species has not previously been recorded outside mainland Hispaniola.

On January 29, 2025, about thirty adults of *Archimestra teleboas* were observed along the trail connecting Punta de Maisí with Pozo Azul, in the northeastern-most tip of Maisí, Guantánamo province, eastern Cuba (Fig. 1A, B). The area consists of a dry coastal forest growing along the lower level of marine terraces of northeast Maisí (Fig. 1C) mixed with patches of ruderal vegetation along the trail leading to Pozo Azul (Fig. 1D). The species was collected at several locations (Fig. 2), but it was observed along all 12 km of trail, flying slowly both high and low in the vegetation, occasionally settling open-winged on leaves (Fig. 1A) or visiting flowers of *Heliotropium indicum* L. (Boraginaceae), *Spermacoce remota* Lam. (Rubiaceae), and *Chromolaena odorata* (L.) R.M.King & H.Rob. (Asteraceae) (Fig. 1B). In this well-preserved and diverse habitat, it was accompanied on the wing by *Libytheana motya* (Hübner, 1826), *Calisto dissimulatum* Núñez, 2013 (Nymphalidae), *Pyrisitia proterpia* (Fabricius, 1775), *Phoebis avellaneda* (Herrich-Schäffer, 1865) (Pieridae), *Parides g. gundlachianus* (Felder & Felder, 1864) (Papilionidae), and *Urania boisduvalii* Guérin-Méneville, 1829 (Uraniidae), among other species. The individuals of *Archimestra teleboas* were either fresh or worn, and both sexes were observed, but no mating or oviposition was recorded. Collected specimens are deposited in the Institute of Ecology and Systematics' Collection (CZACC) and the Yosiel Álvarez Collection (YAC).

This constitutes the first record of the species from Cuba and outside of Hispaniola. The observation of several adults from both sexes, some of them in fresh condition, suggests that the butterfly is established in the area. The absence of previous records of *Archimestra teleboas* in Cuba may suggest a recent arrival from Hispaniola; in the last decades, several hurricanes that have impacted Hispaniola have continued their

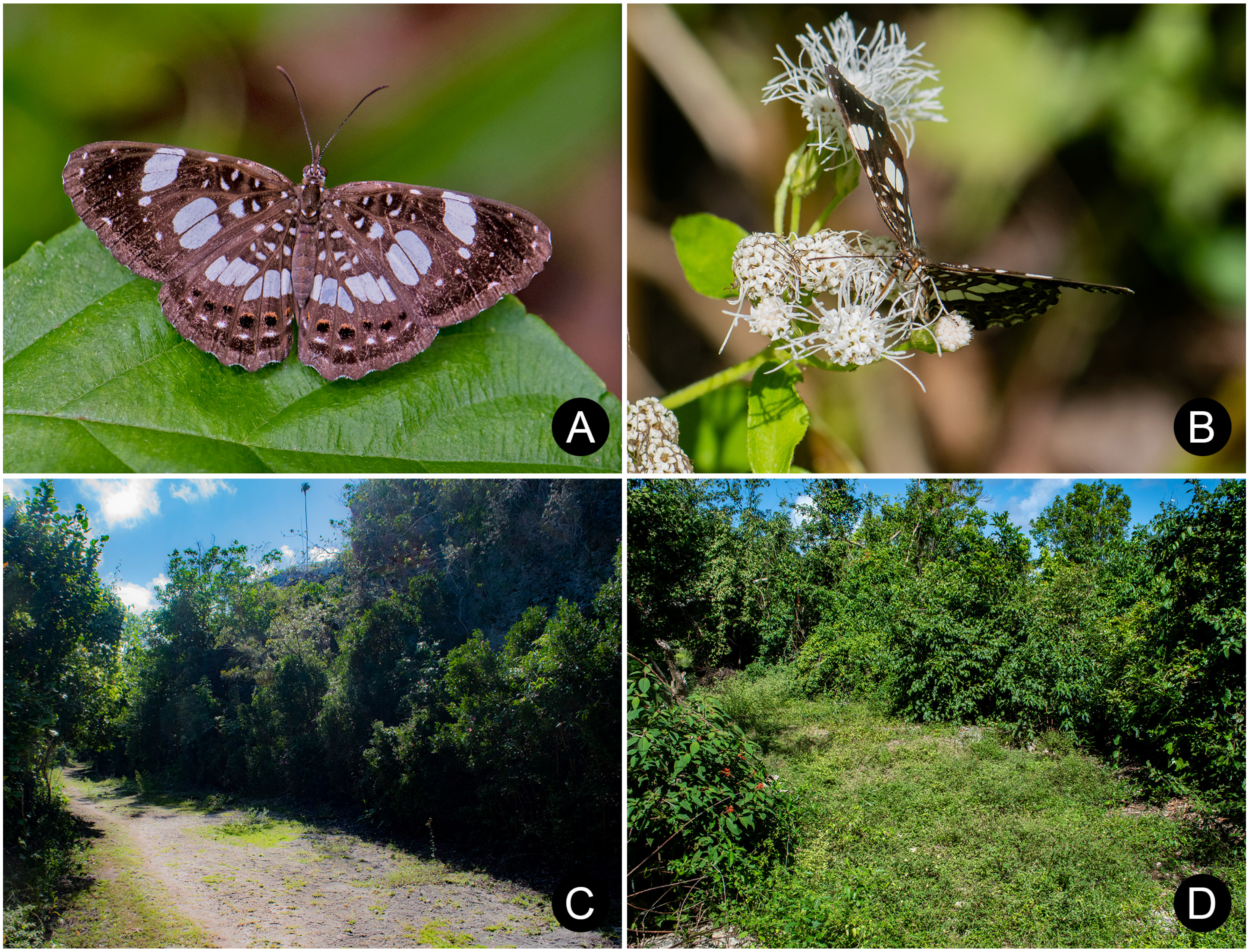

FIG. 1. *Archimestra teleboas* (Ménétriés, 1832) (Lepidoptera: Nymphalidae) and its habitat along the trail from Punta de Maisí to Pozo Azul, Maisí, Guantánamo province, eastern Cuba, on January 29, 2025; A. Adult female perching open-winged; B. Adult male visiting flowers of *Chromolaena odorata* (L.) R.M.King & H.Rob. (Asteraceae); C. Dry coastal forest trail along a marine terrace; D. Patch of ruderal vegetation along the trail of the dry coastal forest. Photographs by Yosiel Álvarez.

path towards Cuba, following a general trend (Jury et al. 2012), some of which could have transported the butterflies to the easternmost tip of the latter island. Also, the minimum distance from Punta de Maisí to Haiti is about 80 km, which could be possible for a butterfly to cross, especially if aided by strong winds such as the ones prevailing in the Windward Passage (Jury 2019). Nonetheless, the lack of previous field work in the surveyed area could also account for the absence of records of *A. teleboas* in eastern Cuba to date. The presence of several species of *Tragia* in this region of the island (García-Beltrán et al. 2024) is congruent with a successful colonization event, either distant or recent.

Both Cuba and Hispaniola have a close biogeographical history and share many butterfly species including closely related species from several genera, such as *Calisto* Hübner, 1823, *Greta* Hemming, 1934, *Archaeoprepona* Fruhstorfer, 1916, *Atlantea* Higgins, 1959 (Nymphalidae), *Dismorphia* Hübner, 1816 (Pieridae), *Heraclides* Hübner, 1819 (Papilionidae), *Burca* Bell & Comstock, 1948, and *Choranthus* Scudder, 1872 (Hesperiidae) (Smith et al. 1994). Furthermore, several colonization events from Hispaniola to Cuba have been documented in the past century, such as those of *Hamadryas februa*

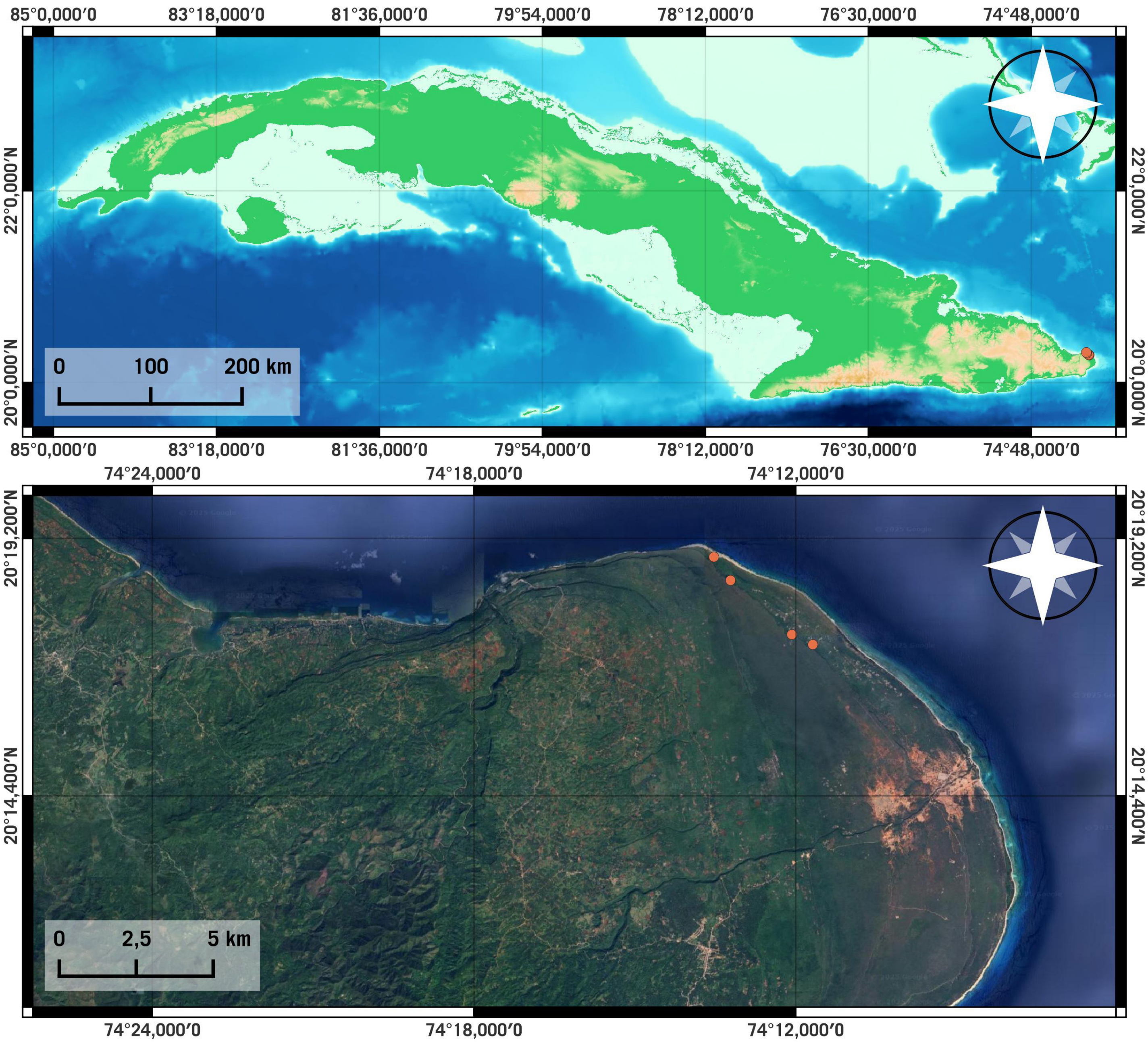

FIG. 2. Collection localities (orange dots) of *Archimestra teleboas* (Ménétriés, 1832) (Lepidoptera: Nymphalidae) along the trail from Punta de Maisí to Pozo Azul, Maisí, Guantánamo province, eastern Cuba, on January 29, 2025. Map generated with QGis 3.26 employing the GEBCO bathymetry layer (above) and Google Satellite layer (below).

diasia (Fruhstorfer, 1916) (Nymphalidae) and *Anteos clorinde* (Godart, [1824]) (Pieridae), as well as the arrival of occasional visitors such as *Libytheana terena* Godart, 1819 and *Zerene cesonia cynops* (Butler, 1873) (Alayo and Hernández 1987; Hernández et al. 1998). Further surveys in nearby areas will confirm the status and distribution of *Archimestra teleboas* in eastern Cuba, as well as the documentation of its life cycle and natural history in the island.

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